

**U.S. VISA POLICY: COMPETITION FOR INTER-  
NATIONAL SCHOLARS, SCIENTISTS, AND  
SKILLED WORKERS**

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**HEARING**

BEFORE THE

SUBCOMMITTEE ON IMMIGRATION, BORDER  
SECURITY AND CITIZENSHIP

OF THE

COMMITTEE ON THE JUDICIARY  
UNITED STATES SENATE

ONE HUNDRED NINTH CONGRESS

SECOND SESSION

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## **U.S. VISA POLICY: COMPETITION FOR INTERNATIONAL SCHOLARS, SCIENTISTS, AND SKILLED WORKERS**

**THURSDAY, AUGUST 31, 2006**

UNITED STATES SENATE,  
SUBCOMMITTEE ON IMMIGRATION, BORDER SECURITY AND  
CITIZENSHIP,  
COMMITTEE ON THE JUDICIARY,  
*Washington, DC.*

The Subcommittee met, pursuant to notice, at 10:17 a.m., at the TI Foundation Auditorium, Building ECSS, University of Texas at Dallas, Richardson, Texas, Hon. John Cornyn, Chairman of the Subcommittee, presiding.

Present: Senator Cornyn.

### **OPENING STATEMENT OF HON. JOHN CORNYN, A U.S. SENATOR FROM THE STATE OF TEXAS**

Chairman CORNYN. I woke everybody up, I trust.  
[Laughter.]

Chairman CORNYN. This hearing of the Senate Subcommittee on Immigration, Border Security and Citizenship shall come to order. I want to just interject that it is clear we are going to have to get some more Federal highway funds for Texas so we can make transit to your campus, Dr. Daniel, a little easier. We have been delayed a little bit because of traffic.

The current debate over immigration reform has focused exclusively on unskilled illegal immigration. What has been neglected is any discussion of high-skilled legal immigration and its effect on our country's ability to compete in a global marketplace. This issue is relevant because American universities, companies, and government entities are waging a global battle for talent, and by all accounts, our immigration laws and policies place our country at a competitive disadvantage.

The truth is that to retain our economic, technological, and military superiority, the United States needs to compete aggressively for the world's talent. For the past 60 years, the United States has not faced much competition from other countries. As a result, high-skilled immigrants have found their way to the United States and made remarkable contributions to our society. Whether you talk about foreign students at Los Alamos 60 years ago or the founders of Intel, Yahoo, or Google, immigrants have enriched our economy and made the United States more competitive. In fact, almost 20 percent of the distinguished scientists and engineers are members

of a National Academy of Scientists, and more than a third of U.S. Nobel laureates are foreign born.

But the United States is starting to lose ground. A recent report of the National Academy of Sciences entitled "Rising Above the Gathering Storm" should serve as a wake-up call. According to that report, China graduates over 200,000 more engineers, computer scientists, and programmers than the United States. Today, India and China graduate three times and Asian countries together eight times as many bachelor's degrees in engineering than the United States.

In the long run, the United States must produce more engineers, scientists, and skilled workers. One of every four scientists and engineers is foreign born, and half of doctoral computer science and math degrees and 60 percent of engineering degrees awarded in the United States go to foreign nationals.

But while we all agree that the United States must encourage more of its own high school and college students to pursue careers in math and science, we can also all agree that that will not happen overnight. And contrary to what some critics say, increasing the pipeline of U.S. students in those fields while simultaneously making the United States more attractive to foreign students and skilled workers are not mutually exclusive goals. The fact is our public policy should do both. We must train and educate more U.S. students, but we must also ensure that there are jobs here in the U.S. for them to fill.

On May 2nd, I introduced what is called the "SKIL bill," S. 2691. Since then, a companion bill has been introduced in the House. The SKIL bill is designed to address this specific problem. It also was accepted as an amendment to the comprehensive immigration reform bill passed by the Senate.

Through changes to our immigration laws, the SKIL bill would enable the United States to attract and retain the most gifted students and workers from around the world. First, the bill exempts any foreign student who has earned a master's or a Ph.D. from a U.S. university from both the temporary visa cap and the green card annual cap. Why after training and educating a foreign student would we force him or her to leave the United States, not because they can't find work, but because we have imposed an artificial cap on the number of visas?

Second, the bill creates a floating cap on high-skilled visas so that if our economy continues to grow at the pace it has over the last few years, our visa policy will adapt with it. And as the United States improves the pipeline of domestic students and the need for foreign students and workers diminishes, the visa limit would adjust as well. The SKIL bill also allows foreign students who graduate from U.S. universities to start the green card process while they are in school. These days, the best students are already working for companies during summer breaks and during the school year. If they are in demand, we should allow employers to start the paperwork as soon as possible.

Finally, the bill would allow workers who are in the United States and who have complied with the law to renew their visa here in the U.S. Unfortunately, our current immigration law does too little to reward those who comply with the law.

I remain guardedly optimistic that Congress will pass comprehensive immigration reform, and I believe that the provisions in the SKIL bill should be included in any final bill.

Let me now introduce our first panel. Today, we are fortunate to have panels of distinguished witnesses. The first is Dr. Daniel, President of the University of Texas at Dallas, our host, and thank you, Dr. Daniel, for hosting this hearing.

Dr. Daniel previously served as Dean of the College of Engineering at the University of Illinois at Urbana-Champaign and received a Ph.D. in civil engineering from the University of Texas at Austin in 1980 and served on the faculty there until 1996. Dr. Daniel is a noted scholar and member of the prestigious National Academy of Engineering. He has won the American Society of Civil Engineers' highest award for papers published in its journals, the Normal Medal, and on two occasions has been awarded the second highest award for papers.

I would also like to congratulate Dr. Daniel on the recent announcement by the University of Texas System Board of Regents to allocate \$27 million for construction of a new facility on the University of Texas at Dallas campus that will focus on research-based education and mathematics, science, and engineering.

The second witness on our panel is Mr. Bo Cooper. Mr. Cooper served as General Counsel of the Immigration and Naturalization Service from 1999 to February 2003, when he became responsible for the transition of immigration services to the Department of Homeland Security. He was the principal legal adviser to the INS during two administrations, at a time when immigration ranked among the most sensitive issues on the national public policy agenda. Mr. Cooper teaches immigration law at the University of Michigan Law School and is testifying today on behalf of the Global Personnel Alliance.

Gentlemen, if you would please stand and be sworn. Do both of you swear that the testimony you will give today will be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. DANIEL. I do.

Mr. COOPER. I do.

Chairman CORNYN. Thank you. Before we begin, let me just say that we would like to make sure we move along relatively expeditiously, so I will ask you to limit your statements to 5 minutes. Your written statement will be made part of the record, and then, of course, we will have time for Q&A to flesh out any things that are missing. And I will be happy to give you an opportunity if you think at the end there are things that we have overlooked or that have not been said that really need to be emphasized, I will give you an opportunity to do that.

Dr. Daniel, we will be glad to hear your opening statement.

**STATEMENT OF DAVID DANIEL, PRESIDENT, THE UNIVERSITY OF TEXAS AT DALLAS, RICHARDSON, TEXAS**

Mr. DANIEL. Senator Cornyn, thank you so much, and thank you for being here at the University of Texas at Dallas. It is a real honor for us to host this Senate hearing.

UT Dallas was created by the same individuals who founded Texas Instruments, and it was created because of workforce issues.

Eugene McDermott, Cecil Green, and Erik Jonsson felt that in order to create the workforce that Texas Instruments would need in order to develop into the globally preeminent company that it is, it would simply have to have homegrown talent in order to be able to accomplish that. So they created a graduate research institute that later became part of the UT system. Their vision, as I have heard it stated, is that we might 1 day become the MIT of the Southwest. Well, we have a ways to go to get there, but I feel that our first steps are very much along that pathway consistent with that spirit.

Eighty percent of our graduates from this institution major in science, engineering, mathematics, or business. So we feel that we are producing exactly the kind of talent that this region, this State, and this Nation needs to remain vital, healthy, and competitive.

The Dallas-Fort Worth Metroplex, despite being one of the largest and most economically productive metropolitan areas anywhere, does not have a true world-class research university outside of the medical field. We do have UT Southwestern Medical Center, which is a preeminent graduate medical research facility, but on the academic side, we have a ways to go to grow UTD and the other area institutions to that top tier.

We are thrilled that the UT system announced recently an unprecedented investment of \$2.56 billion to boost competitiveness in key scientific areas, which includes the new building for UT Dallas, Senator, that you mentioned earlier.

We are an institution focused on the very best talent within these areas of science, engineering, business, and complementary fields, such as arts and technology. We are working extremely hard to increase the pipeline of local students, and in my written statements, some of those programs are described. I will just highlight very briefly two of them.

One is our nano explorers program, which brings about 20 high school students per summer into our nanotechnology labs, suits these kids up in spacesuit-like equipment, and pins them as nano explorers. Actually, Professor Ray Bockman, who is just an incredible scientist, did this because as a child his dad took him into one of these science labs, and he later became one of the Nation's preeminent scientists. So we are very proud of that program.

We have an academic bridge program which reaches out to folks principally in the Dallas Independent School District who would not normally think that they are college track, and certainly their SAT scores would not automatically sing out to the world that "I am going to be successful in college." But we take about 30 of these kids under our wing every year, and the most remarkable thing is that the graduation rate of these students is about 80 percent. So we bring them into the university and we graduate them. We have an outstanding science and math education program and are just working diligently to try to increase that pipeline.

We do want to continue to attract the very best talent from around the world. Every major U.S. university depends on a few of those smartest people from anywhere in the world to sustain our position of strength as an internationally competitive university.



So, with that as opening remarks, Senator, if you have any questions, I would be delighted to answer them. Thank you for the opportunity to address the Committee.

[The prepared statement of Mr. Daniel appears as a submission for the record.]

Chairman CORNYN. Thank you, Dr. Daniel.

We will now hear the opening statement of Mr. Cooper. Thank you for joining us.

**STATEMENT OF BO COOPER, FORMER GENERAL COUNSEL, IMMIGRATION AND NATURALIZATION SERVICE, ON BEHALF OF GLOBAL PERSONNEL ALLIANCE, WASHINGTON, D.C.**

Mr. COOPER. It is my pleasure, Mr. Chairman. I appreciate the opportunity to testify, and the Global Personnel Alliance especially appreciates the leadership that you have shown in connection with this issue, both in stewarding the SKIL bill and in having us here and in making sure that focus stays on this critical issue of the way that our immigration policy has got to be shaped to serve our National competitiveness goals.

Our high-skilled immigration policy, despite this key principle, has not been meaningfully updated in over a decade and a half. It has fallen years out of alignment with our country's economic and educational needs. There is not a sufficient path into the university, from the university to the workplace, and there is a severe shortage of professional visas and of green card slots for the most highly skilled. And other countries are watching this, and they are moving in exactly the opposite direction. They are shaping their immigration policies so that they attract into their schools and into their workforces the very people, the best and brightest in key fields from around the world, that we ought to be trying with all of our might to attract into our workplace.

Let me try to highlight some of the key issues that arise at each stage of the process, beginning briefly with the student visa process. Getting the best students to come and study in our schools is one of the most effective ways we can find to attract the best scientists, doctors, researchers, and other professionals into our workplaces. But because of delays, because of outmoded requirements regarding long-term intentions after graduation, and inadequate time for post-graduate practical training, that goal is being interrupted, and other countries are viewed as having immigration policies that are more welcoming and more friendly. And faced with this choice, a lot of the world's best students are choosing to go elsewhere.

These kinds of problems can become even more acute in the recruitment of highly skilled professionals, both from outside the U.S. and from inside of the country. The H-1B visa, of course, the key and also the only visa available for high-skilled professional assignments, is dispensed according to a formula that is badly out of sync with our Nation's needs. It was only 5 years ago set at 195,000, and every year since, it has dropped, in 2004 to 65,000. That cap has been hit earlier and earlier each year, and this year we set a new low by running out of H-1B visas 4 months before the fiscal year even began. That faces employments with a staggering 16-

month period without access to the most highly skilled professionals.

This mismatch between immigration policy and our competitiveness goals is most often seen in the public debate from the perspective of the tech sector, and this is certainly a very important perspective because the high-tech sector has exemplified the way that innovation can feed the economy and create American jobs. And it also has exemplified the way that mixing foreign and U.S. intellectual talent can lift or even create industry in this country. But the problems that are faced because of our immigration policies are not at all confined to the tech sector, and they reach to hospitals, to schools, to businesses of all sizes and across the range of industries.

I would like to quickly offer one example from the manufacturing sector. This example involves a manufacturer of business jets. A major U.S. employer, they have thousands of U.S. employees. Of these thousands, only a handful—a few of them, about 2 percent—are foreign national workers here on visas, and this company is desperately in need of aerospace engineers, and they cannot find enough of them in this country. This spring, fresh off of a very significant hire of the engineers they could find in this country, they still had not met their needs. But they identified a complement of about 30 highly skilled engineers—by the way, from a competitor company outside the U.S. But it was May, and they knew they were racing the clock. The Friday before Memorial Day, the Government had announced that there were only 12,000 H-1B visas left. So over Memorial Day weekend, there was a team of people preparing H-1B visa petitions for this group of aerospace engineers, getting ready to file them the next week. And, lo and behold, the next week arrives and the announcement is made by the Government that the H-1B visa supply had actually run out the Friday before and no more petitions could be accepted for H-1B until—October of 2007 is the next time an H-1B can begin work.

In this case, there is no alternative hiring strategies possible. They have already hired all the U.S. engineers they could, and so the result is that they are simply left without enough people to succeed and to compete as effectively as they need to. And there could not be a more stark example of the H-1B program actually failing its policy goal. When companies cannot recruit the talent they need, the cap impedes production, it diminishes competitiveness, and it stunts U.S. job growth. The problem are just the same in connection with the green card process, and those problems are very, very well documented.

Wrapping up, Mr. Chairman, effective professional immigration reform is in reach. You have already, with your colleagues, devised a very effective solution. There appears to be strong bipartisan support for high-skilled immigration reform, and there appears to be essentially unanimity that high-skilled immigration reform is a net benefit to the U.S. economy. But the longer this reform is delayed, the more seriously we risk sliding backward in our efforts to maintain global competitiveness.

Thank you very much.

[The prepared statement of Mr. Cooper appears as a submission for the record.]

Chairman CORNYN. Mr. Cooper, let me start with what some of the critics say, and I would like for you to sort of clarify or maybe correct some of the misimpressions that have been mentioned during the course of Senate hearings on the Judiciary Committee about the impact of lifting the cap on H-1B visa workers.

First of all, can you tell us whether an H-1B visa worker can be paid less than an American worker? In other words, can companies go out and low-ball the pay of a foreign worker and get him in the country to displace an American worker with impunity?

Mr. COOPER. No, that is not at all possible, Mr. Chairman. The program is set up with some pretty strict requirements to ensure that the U.S. workforce is protected. Chief among those is the obligation of the employer to pay either the prevailing wage for the kind of job in the area that is being offered or the actual wage that that employer pays to its similarly situated employees, whichever of those two things is higher. And often in practice that actual wage is, especially in these key fields where recruiting is so difficult, significantly higher than the prevailing wage because that is what market forces call for. And when that is the case, it is that actual wage that has got to be paid to the H-1B. And an employer fails to do so at significant peril. The Department of Labor has important enforcement authority and may exercise those enforcement authorities, and employers can face back-pay obligations, penalties, debarment from using the immigration system—obviously a key penalty—as well as just the public relations difficulties that can face someone who does not abide by program requirements.

Chairman CORNYN. Well, based on your answer—and you answer accurately describes my understanding of the law—there seem to be a number of urban myths related to this whole issue.

Dr. Daniel, I think you told me earlier that you believe that market forces have the best impact over and above the law in terms of making sure that American workers are not displaced in favor of foreign workers under an expanded H-1B visa policy. Could you expand on that, please?

Mr. DANIEL. Yes, Senator Cornyn. I have been an engineering professor for 26 years and have had dozens and dozens of graduate students, many domestic and some foreign. Often professors wind up working closely with these students and matching up students with companies, and it has universally been my experience that I see no difference in the salary packages offered to the students, whether they are domestic or international. And the students usually come to me and sort of check in and make sure the salary offer is a fair and a reasonable one. And I have just never in any instance whatsoever seen that be a factor.

The companies need the best talent, and they are going to pay prevailing wages. They have to. That has been my experience.

Chairman CORNYN. Mr. Cooper, let me ask you another question about the impact of the H-1B visa on American companies and American competitiveness and the ability of the United States to train native-born citizens and other naturalized citizens in these critical areas.

My understanding is that U.S. companies have paid more than \$1 billion in fees that have funded more than 40,000 scholarships for U.S. students in math and science. These fees obtained from

employers as part of the H-1B process have funded hands-on science programs for 75,000 middle school and high school students and 3,000 teachers. And, finally, more than 55,000 U.S. workers and professionals have received training through the H-1B fees paid by companies.

Is that information consistent with your understanding of the fees paid by companies as part of the privilege of having H-1B visas?

Mr. COOPER. That is exactly right, Mr. Chairman. That was an effective reform to the H-1B program not so long ago based on the notion that users of the system that works to import talent from abroad ought also to contribute to the boosting of talent within this country. And so it is entirely appropriate that employers pay a reasonable fee in this connection. It is actually fairly substantial right now, \$1,500 per petition in most instances. And that generates huge sums, as you were describing, somewhere in the neighborhood of \$125,000 per year at current levels. Of course, if the H-1B program were recalibrated to meet needs and, therefore, the supply increased, that number would only increase accordingly. So that is a very important way in which the program is structured to also serve a different but related goal, that is, boosting the education and abilities of U.S. workers.

On top of that formal structural system for calling on the participation of H-1B users, I think it is important also just to go back to the market forces that Dr. Daniel was talking about. Companies realize that it is just as important for them to be able to have a key pool, a very strong pool of U.S. talent in key fields, and so, very independent of these structural requirements of the H-1B program, tend to invest enormous resources in outreach to universities and outreach to students trying to encourage people to go into sciences, engineering, mathematics, putting in place programs to provide technological abilities at higher level to students at K-12 and universities. And so that takes place very, very frequently just in the private environment when companies themselves, independent of the H-1B program requirements, are trying to serve this very goal of raising the knowledge and the educational levels of U.S. students.

Chairman CORNYN. Dr. Daniel, as Mr. Cooper said, there is a lot going on, other than what the Federal Government is doing to encourage what we call homegrown experts in math and science, engineering and technology. Have you seen the fees from H-1B visas to be an effective supplement to help pay for or defray some of the costs for training of American citizens or naturalized citizens who are studying in these key areas? And maybe you could expand a little bit on how you see these working in a complementary fashion if, in fact, you believe they are?

Mr. DANIEL. Senator, I do not have any personal experience with those fees, but what I do have experience with is just simply confirming that U.S. companies and corporations are pouring substantial dollars into assisting through scholarships and fellowships, summer internship programs, growing our own, if you will. They are highly motivated to have a diverse workforce, as I am sure Mr. Ritter and others will be able to testify today. And so it is simply

the reality that massive efforts are being made on their part to try to increase the pipeline.

Chairman CORNYN. Recently, the National Academy of Sciences issued a report that I alluded to in my opening remarks called "Rising Above the Gathering Storm: Energizing and Employing America for a Brighter Economic Future." And as you both no doubt know, this is focused largely on how we can improve math and science education in America, encourage more students to study in those areas, encourage more teachers and better teachers to teach in those areas, to maintain America's competitive edge. And this report—again, issued by the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine—is focused primarily on how we can increase our domestic resources when it comes to this necessary component of our competitive edge. But it also speaks specifically to the issue of the H-1B visa, and on page 7 of the report, where it is entitled "Best and Brightest in Science and Engineering Higher Education," one of the actions encouraged by this report was to continue to improve visa processing for international students and scholars. And I want to come back to you in a moment, Dr. Daniel, and ask you about your experience with the Federal Government's processing of visas for international students and scholars.

But it also proposes to provide a 1-year automatic visa extension for international students who receive doctorates or equivalent degrees in science, technology, engineering, mathematics, or other fields of national need at qualified U.S. institutions to remain in the United States to seek employment. It includes also, in addition to other recommendations, a new skills-based preferential immigration option.

Let me direct this to you, Dr. Daniel. I have been told that post-9/11, because of some of the more restrictive visa policies of the U.S. Government in the effort to protect our national security and avoid the scourge of international terrorism, it has actually created impediments to foreign students in some cases coming to the United States and foreign scholars coming to the United States for meetings and the like, and that our competitors in a global economy, other nations that would love to have these foreign students come there and study in their universities, and then live and work there and help stimulate and grow their economy, that this has actually worked to the disadvantage of the United States in our competitive global environment.

Could you share with the Committee your experiences in that area?

Mr. DANIEL. Yes, Senator Cornyn. There has been a very noticeable change since 9/11. I am sure, as you are aware, graduate student applications in the U.S. from international students are down significantly, roughly one-third. Our international student population here at UT Dallas is down a bit.

But I think the most significant aspect is really just what you described: the very brightest and smartest people that we want to be thinking about coming to the United States find it very difficult to navigate through the visa process, and as a result, they are turned off, if you will, to the prospect of coming to the U.S.

I remember I had a delegation a few months ago from a Chinese university that came to talk with us about academic collaboration, the exchange of students, and so forth. And only about half of the delegation managed to get visas to come and visit with us. And so I was immediately in the position of apologizing to the delegation that they were only half of their intended strength with no apparent rhyme or reason that I could tell why those who did come were able to get visas and those who did not come were not able to.

The unfortunate reality, further, is that although 20 years ago the best and brightest international students principally had the U.S. to look to, to go to the best universities in the world, Australia is working adamantly to upgrade their universities. Singapore truly wants to outflank us in attracting the best and brightest in the world to their universities. And those institutions, just as Mr. Cooper said, and those countries are setting up practices, I think, to take advantage of our current weakness in this area. And I think the real public policy question is: Is it in the best interest of the U.S. to turn the best and brightest throughout the world away from the U.S. and hand them over to other countries? And my feeling as a university president is it is just a horrible public policy decision. We want those people here to elevate our university, to elevate the intellectual climate, to sustain our position of international preeminence, and to feed into our society the talent that we need. And it has just, since 9/11, in that regard been going backwards.

Chairman CORNYN. Well, thank you, Dr. Daniel. I know in the audience today we have some of my caseworker staff who work hard to help navigate the bureaucracy when there are speed bumps and other impediments to issuing the visas to people who should be—who are not a national security threat and who should be receiving those student or travel visas in the case of international scholars. And we are glad to help, but we want to also note where the impediments are that perhaps are written into the law or otherwise need to be dealt with.

Let me ask to follow up one more question to you, Dr. Daniel, before I turn to another question for Mr. Cooper. The President's American Competitiveness Initiative proposes new Federal support to improve the quality of math, science, and technology education in our K-12 schools. What obstacles stand in our way of really improving the quality of our children's education in math and science in your view?

Mr. DANIEL. Senator Cornyn, that is an excellent question. It is a very deep issue. I think the two that come to mind first are the training and qualifications of schoolteachers in the U.S. in mathematics and science. Statistics show that a surprisingly large fraction of our math and science teachers are not actually trained in mathematics and science. And what we genuinely need to do is inspire kids who have the talent and ability in math and science to pursue that field, not to turn them off.

So the training of teachers I think is the foundation block, but I think just the message that we as a society and Government send to our young people about the importance of math and science becomes crucial as well. Government programs that help and partner with industry and with educational institutions to provide support

and structure to send the message that these are great fields to go into and structures it in a way to engage and interest students I think are exactly the right kinds of programs to try to get not only at the substance of what takes place in the classroom but the spirit and inspiration that causes students to want to pursue those fields.

Chairman CORNYN. Mr. Cooper, one thing that does not make sense to me is the foreign student who graduates from a U.S. university and then takes a job with a U.S. company is required to switch to a temporary visa, and only then after the student has switched to a temporary visa can the employer start the green card process. Why, if we know the student will stay in the U.S. and that the student has a job from an employer, would we require the student to go on a temporary visa? Does that make any sense to you? And if not, what policy would you recommend that we change?

Mr. COOPER. I could not agree more, Mr. Chairman. First of all, I think that if the temporary visas were—I mean, if the temporary visas were more adequately available, then you would not have as severe a problem as we see now. But I agree with you entirely that it makes much more sense to have a direct and streamlined route right from the universities and into the workplace for the long term if that is what the employer knows best serves that employer's interest and if the student has the skills that are required for qualification for whatever the long-term visa classification is.

And I think that the recipe that is in the SKIL bill for that is a very effective one, is a very simple one. That expands the time after graduation that the student can stay here for practical training and look for a job, and it on the other side makes it easier to link into and apply right up front for permanent residence, once the employer-employee relationship that is going to bring that student into the U.S. workforce has been identified. It is a very simple solution, and I think it is one that you should continue to push for.

Chairman CORNYN. I think one of the things that frustrates the American people and certainly my constituents here in Texas when I talk to them—or listen to them, maybe is more the appropriate way to frame it—about immigration is that they seem to be focused almost exclusively on illegal immigration and low-skilled, relatively low-education immigrants coming across our Southern border at the rate of maybe 500,000 or so a year. Currently, estimates are that we have as many as 12 million undocumented immigrants here in the United States. And it strikes me as ironic that we have, by virtue of the failure of the Federal Government to deal effectively with border security and our immigration system, we have virtually uncontrolled or, let's say, at least massive illegal immigration by low-skilled workers, and we put a cap of 65,000 a year on high-skilled workers who are never likely to be a drain on our economy, never access our service system, but instead are likely to create wealth and opportunity and jobs for the American people.

How did we get in that condition, Mr. Cooper? You have been involved in the immigration system and debate, and certainly on behalf of two separate administrations. How did we get into this mess?

Mr. COOPER. I think a key part of it is losing sight of the basic principle that your immigration policies ought to serve what you identify as your various national goals. And I think that the failure

to keep an eye on that is what has led, in large part, to the inability in today's debate to distinguish what kinds of issues are important and what kinds of solutions are appropriate to the question of controlling migration and what to do with the people who have already become a part of the U.S. workforce, et cetera. And then the very different question of how is it that high-skilled immigration policies will serve our economic needs and serve our competitive needs. And I think examples of the mismatch abound every single day.

Just yesterday, in connection with our education goals, I happened, totally unconnected with preparation for this hearing, to be in touch with a teacher who is Chinese. She has just graduated with a specialty in bilingual special education from George Washington University, and I was put immediately in mind of the national goals that have been identified in connection with bilingual education.

This year the President announced a \$114 million initiative called the National Security Language Initiative. The principle is that we as a population in the U.S. ought to have better skills in key languages—Arabic, Chinese—both from the national security standpoint and from the competitiveness standpoint.

And so here is a person who falls exactly into the needs that would meet those goals, yet our immigration policies are not set to meet those needs. You cannot find the teachers in this country to be able to teach those languages to our students. And here is the very person who falls right into that category of needs, yet because of the kinds of policies that you described that restrict practical training post-graduation and that do not offer enough—that require someone to have a temporary professional visa and then do not offer enough of those, it is just a block on our ability to incorporate into our workforce someone who we need specifically to meet a clearly identified national goal. And I think that that failure to match immigration policy with other national goals is what contributes to the mismatch you were describing.

Chairman CORNYN. Dr. Daniel, from your perspective, what I would translate what Mr. Cooper said or reduce it to in just sort of a word or two is that we ought to have an immigration policy that reflects our National interests. Do you have any quarrel with that formulation or that approach?

Mr. DANIEL. No, sir. I think you have put it perfectly.

Chairman CORNYN. Well, I think it is important, and one of the purposes of this hearing is to make sure that the people in this State, certainly people in North Texas who might be paying attention to the immigration debate, are informed that it is more than just low-skilled workers who are coming across the border. Obviously, we have to deal with that issue in a way that reflects our National values, and also the fact that there are many jobs, I am told, that American companies, employers cannot find a sufficient workforce for, both at the high end and relatively low end of the education and skill range.

But we will continue to persevere in the U.S. Congress. My hope is we will be able to work out the differences between the Senate bill and the House bill. But the testimony that both of you have provided has been enormously helpful and enlightening with re-



gard to dealing with the H-1B visa issue. It should be an issue where people of good will and common sense could come together and find a solution, even in the absence of a comprehensive immigration reform bill. But my hope is that it is part of that comprehensive reform that will deal with our National security interests, will deal with the interests of our economy, and will deal with the issue of global competitiveness.

I mentioned yesterday, as Dr. Daniel knows, at the American Electronics Association Forum on International Competitiveness that the Federal Government is taking some bold steps, the Congress is, on this issue in terms of global competitiveness to deal with both the domestic homegrown scientists and mathematicians and engineers as well as the H-1B visa issue through what is called the PACE legislation, Preserving America's Competitiveness.

The good news is that it has bipartisan support in the U.S. Congress, which is always essential to getting good policy passed, and my hope is that very soon upon returning after our August recess, or hopefully, if not then, in January, we can move to provide many of those incentives that, Dr. Daniel, you in particular said we need in terms of encouraging teachers and certainly students to study in this area. And that will complement the work we have been able to do on immigration reform, particularly with H-1B visas.

With that, let me say to both of you, thank you for your contribution, very valuable contribution. I appreciate that very much.

We are going to take about a 5-minute recess while we set up the table for the next panel.

[Recess.]

Chairman CORNYN. Before I introduce our next witnesses, I want to offer into a record a letter from the president of the Greater Dallas Chamber regarding this particular issue. It can be easy when we talk about a national and international issue to forget that it will be the local communities here in Texas and elsewhere that will suffer from our failure to act. She correctly notes that if the United States does not want the best scientists and engineers the world has to offer, plenty of other nations do. And this letter will be made part of the record, without objection.

Our next panel is a distinguished panel that I will now introduce, starting with Mr. Philip Ritter from Texas Instruments. Mr. Ritter is Senior Vice President and Manager of Public Affairs for that company. He has global responsibility for the firm's public affairs activities, including government relations, philanthropy, and community affairs. Mr. Ritter started with Texas Instruments in 1989 in the company's law department as counsel to a variety of the company's businesses.

Our next witness is Phyllis Norman. Phyllis Norman is the Vice President of Patient Care Services for Harris Methodist Fort Worth Hospital. She is responsible for planning, organizing, directing, and evaluating nursing care and other clinical operation services in this 710-bed tertiary care hospital. In addition to being a registered nurse and a certified nursing administrator, she holds a master's of business administration in health care administration.

Our next witness, our third witness, is Mr. Lance Kaplan. Mr. Kaplan is a partner with the global immigration firm of Fragomen, Del Rey, Bernsen, and Loewy. Previously, Mr. Kaplan was a part-

ner responsible for global immigration services for a Big Four accounting firm. He has extensive experience with the immigration laws and policies of other countries and could perhaps give us a broader perspective on what other countries are doing to better compete for the same pool of skilled workers.

Before I turn to Mr. Ritter, let me just acknowledge the presence of members of the immigration staff of Senator Kennedy and other members of the Immigration Subcommittee. Senator Kennedy is the Ranking Member on the Subcommittee, and I think it is fair to say he has a lot of interest in the topic we are talking about today and has been a forceful advocate for comprehensive immigration reform in the United States Senate.

I also see a former member of my staff, Tiffany Thibodeau, who is now with the Department of Homeland Security. So there are a lot of folks paying attention to what is going on here today, and we trust we will be edified by the testimony of the second panel, as we have been by the first.

Mr. Ritter, let me turn to you for your opening statement.

**STATEMENT OF PHILIP J. RITTER, SENIOR VICE PRESIDENT  
AND MANAGER OF PUBLIC AFFAIRS, TEXAS INSTRUMENTS,  
INC., DALLAS, TEXAS**

Mr. RITTER. Well, thank you, Senator Cornyn. I appreciate you inviting me to discuss an issue that is critical to the competitiveness of U.S. business, and that is access to top talent. Competitiveness is our top public policy priority at Texas Instruments, and we support the President's American Competitiveness Initiative, which calls for increased investments in basic research, making the R&D tax credit permanent, improving math and science education, and ensuring better access to skilled professional, including highly educated foreign nationals.

Your hearing today highlights this last item and the need to update it and reform our deeply flawed immigration laws, specifically those pertaining to highly educated foreign professionals. Like you, we are advocates for change in this area. And on that note, I want to thank you for your leadership in bringing forward the SKIL bill, legislation which we believe will go a long way toward addressing these deficiencies. The United States benefits when foreign-born scientists, doctors, teachers, engineers, and entrepreneurs live and work in this country.

I would like to highlight three points this morning:

First, the United States' long-term competitiveness is tied to the intellectual brain power of its people, and particularly people in the science and engineering workforce, and, unfortunately, the U.S. is not producing enough American-born professionals to meet the demands in these fields.

Second, we always want to have access to the best talent in the world, but building a domestic pipeline of scientists and engineers must be a national imperative, and there are some very interesting things going on in that area in this region, as you know.

And, third, access to talent is not just about more H-1B visas. It is also about green card reform that ensures that foreign nationals can remain in the United States with their families and build their careers here.

On the first topic, the United States' science and engineering workforce, whether it is Tom Friedman, Norm Ornstein, the National Academy of Sciences, or whatever, the verdict is in. We face significant challenges in developing, attracting, and retaining an adequate science and engineering workforce. We know that more than half and in some disciplines two-thirds of the advanced degrees awarded by U.S. universities in science and engineering are earned by foreign nationals. Due to a number of factors, we also know that fewer U.S. students are choosing to study in these fields. And despite this grim reality, U.S. businesses, companies like TI, must compete and succeed in a highly competitive global market.

For example, TI is highly dependent on electrical engineers and computer scientists. When we recruit at Texas schools, we find upwards of 70 percent of the master's and Ph.D.'s in the EE field are awarded to foreign nationals. We need access to that talent. If we don't have access to that talent, we cannot grow our job base and invest here in the U.S. And it is the same situation for our competitors, and it is a constant scramble.

Building the domestic pipeline. We always want to tap the world's best and brightest, especially in this global economy. But there is no doubt we must do more here in the U.S. to build an indigenous pipeline of talent. In fact, our company's primary philanthropic and volunteer efforts are in furthering and enhancing the math/science education pipeline at all grades and at all levels, and you have in the record an inventory of several of TI's education initiatives.

What I would point out specifically is something that is known around here at Project Emmitt, and about a mile and a half down the road from here, we just finished construction on a building that will eventually be a \$3 billion advanced semiconductor manufacturing plant, and we went through a site selection process a couple years ago, trying to decide where we were going to build that, and we basically had two issues: Number one, would it be cost competitive to build here? And, number two, would we have access to the talent and the climate for innovation that we needed?

We pointed out a deficiency which Dr. Daniel noted earlier, that this region lacks a top engineering school, and we asked the State of Texas to do something about it if they expected to attract that investment. Well, the State of Texas made a \$300 million commitment to the J. Erik Jonsson Engineering School, primarily in the graduate research area, to improve the number of faculty and students that will be studying here in engineering, especially electrical engineering. And that was a key factor in our decision to make that \$3 billion investment here in the U.S. and in this community.

The Federal Government clearly has a role in making math and science proficiency a national imperative and to ensure the next generation of scientists and engineers. The President's Math Now, Advanced Placement, and Adjunct Teachers programs, which we strongly support, are important tools in reaching that goal, and finding enough qualified math and science teachers in high schools is one of the greatest challenges we face in addressing this issue.

Finally, on green card reform, as you know, the Government has already exhausted the H-1B visa quotas for the next fiscal year as well as the additional 20,000 visas available for students grad-

uating with advanced degrees from U.S. universities. There is no question that more visas are needed, and we strongly support the provisions in the SKIL bill that not only raise the H-1B cap but also exempt altogether professionals who have earned a master's degree or higher. From TI's point of view, why would we send these graduates home to compete against us, compete against our company? It makes absolutely no sense.

Equally important in the bill's provisions are those that update the employment-based visa or the green card program. They will provide additional visas and generally exempt individuals with these degrees. A majority of scientists and engineers earning advanced degrees from U.S. universities are foreign born. Many of them wish to stay here with their families and establish their careers. We have got about 12,000 employees and about an equal number of contractors who work at TI's operations in North Texas. I have the privilege of serving as the executive sponsors of the Indian Diversity Initiative at TI. We have got about 600 TI'ers of Indian descent who work in our operations, and I tell you, their contributions to our business success is absolutely critical, and they are a delightful bunch of people to work with.

So, in short, the goals and objectives of the SKIL bill are critically important, and, Senator Cornyn, I really want to thank you for your leadership on this and urge you to strongly secure some relief on this high-end visa issue this year.

Thank you very much.

[The prepared statement of Mr. Ritter appears as a submission for the record.]

Chairman CORNYN. Thank you, Mr. Ritter.

Ms. Norman, we would be glad to hear from you.

**STATEMENT OF PHYLLIS NORMAN, VICE PRESIDENT, PATIENT CARE SERVICES, HARRIS METHODIST FORT WORTH HOSPITAL, FORT WORTH, TEXAS**

Ms. NORMAN. Thank you, Senator. I do appreciate the opportunity to talk with you today about my thoughts on the SKIL bill, S. 2691, particularly as it relates to recruitment of foreign nurse graduates.

As you mentioned, I am the chief nursing officer at a large tertiary care facility, and one of my primary responsibilities is to be sure that we have enough registered nurses to provide the services that the hospital provides within its walls and out in the community.

The health care industry is facing a number of challenges as we are beginning to deal with an ever aging population, an increase in obesity, and the development of chronic health problems that require more and more services, and services provided by registered nurses.

Currently, the United States cannot produce the number of qualified registered nurses that it needs. Texas alone in the year 2010 will need 40,000 more nurses than will be available. It is predicted that by the year 2020 there will be a shortage in this country of 1 million nurses. This is due to a variety of factors. There are many other careers that are more attractive than nursing these days, especially for women. There is a shortage of faculty to train

nursing students. And the RN people is aging; the average age is 46 years old, and people are opting out of the profession in large numbers at an earlier age than most other occupations.

A lot is being done at the institutional level, the State and local and Federal level, but funding is really inadequate, and the lead time to make much improvement is too long to have an immediate impact. We are really on a collision course with the growing patient care needs that makes the availability of qualified immigrant nurses so critical for us.

It is estimated that 15 percent of the new nurses licensed in this country each year are foreign graduates—15 percent. Any interruption of their availability will have an immediate effect on the health care industry.

We did have such an interruption in 2005 when visa numbers for skilled employment-based immigrants were oversubscribed and a waiting list was established for those largest sending countries—China, India, and the Philippines. The effect was a 3-year hold on admissions of these immigrants. While other categories of skilled workers were affected other than nurses, most of those employees were already in the United States and could continue to work until their green card were issued. Nurses do not have such a temporary work category, so they had to wait abroad for this condition to be lifted. Luckily, through the initiative of the American Hospital Association and the leadership of your colleague, Senator Kay Bailey Hutchison, Congress was persuaded to “recapture” 50,000 visas that were unused from prior years and apply them to nurses as well as physical therapists. However, the pool is drying up and expected to dry up by November possibly. More than half of these have been used to accommodate the dependents of the workers.

This time the waiting list will not be limited to those three countries but will be expended to all countries. And instead of a 3-year delay, this will stretch out to 5 years. Imagine losing 15 percent of the new nurses in this country each year for a 5-year period. We are talking about 75,000 nurses that will be affected. Hospitals and their patients really cannot take this kind of hit.

Luckily, there is a ready solution, and your excellent SKIL bill addresses the problem along with providing many improvements to employment-based, legal immigration. It does so by taking registered nurses and physical therapists out from under the annual worldwide cap for skilled workers. It does so based on the existing designation by the Secretary of Labor as “shortage occupations” for registered nurses and physical therapists, thereby allowing them to receive blanket labor certification. Should other measures improve the domestic supply, these professions would go back under the caps. Therefore, there is really no danger of flooding the market with unneeded immigration.

We face a crisis within the next few months, and we urge Congress to pass the SKIL bill, either as part of the comprehensive immigration reform, as a separate bill, or as a rider to a year-end spending measure. Whatever the procedure, the remedy is needed now.

I want you to picture what happens when we do not have enough registered nurses. We close hospitals beds. Sometimes small communities close their hospital entirely. We have overcrowded emer-

gency rooms, delayed treatment, elimination or reduction of needed services, and occasionally denied access to patients who really need the care. We need your help, and we appreciate the work that you are doing on this.

[The prepared statement of Ms. Norman appears as a submission for the record.]

Chairman CORNYN. Thank you very much for your opening statement, Ms. Norman. We appreciate that.

Mr. Kaplan, we would be glad to hear from you.

**STATEMENT OF LANCE KAPLAN, PARTNER, FRAGOMEN, DEL REY, BERNSEN, LOEWY, LLC, ON BEHALF OF THE AMERICAN COUNCIL ON INTERNATIONAL PERSONNEL, ISELIN, NEW JERSEY**

Mr. KAPLAN. Thank you, Senator. We appreciate the opportunity to testify before you today. I am here on behalf of the American Council on International Personnel, which is an organization which represents nearly 200 in-house immigration professionals at America's leading corporations, and I strongly concur with both your opening comments and also the comments of all of the other witnesses here today, wherein everybody has clearly identified that the United States faces a talent shortage and our current system clearly does not have the ability to recruit and retain the brightest and the top talent that we need in order to remain competitive in our environment.

The perspective that I bring today is to try and show yourself as well as the Committee what other countries are doing versus what we are doing, and the reality is that historically the United States has really had a program which has been followed by other countries. As technology has advanced and as countries have advanced, they have recognized the need to change immigration laws to facilitate the introduction of talent into their economies, both at the student level as well as temporary and permanent personnel moving in to work within the corporations.

Unfortunately, here in the United States, I think that we have not adjusted as quickly as we should have, and so what I would look to do today is just focus on a number of countries. As an example, my written testimony contains more detail, but I will focus primarily today on Australia, the United Kingdom, and Canada, but primarily Australia.

Australia has adopted a particular approach to immigration which is slightly different from what we have done here. In the first instance, what they have done is they have undertaken formal studies which document the benefit of immigration, and they have done that in order to stop the debate in the sense of saying is immigration a benefit or is it not a benefit. They have conducted formal studies through the universities which have shown immigration definitely is an economic benefit to the country.

Like the United States, Australia has structured its immigration intake into both temporary and permanent, and in doing so, it has based its immigration policy based upon the need of the country, and it has specifically taken steps to identify what the needs are and structured programs to accommodate those needs.

What it has done is it is based on students and as Dr. Daniel eloquently stated, 17 percent of the Australian student population is made up of foreign students. So the student community in Australia represents a significant revenue boost for the Australian economy because there are foreign students bringing revenue into the country. But over and above that, there is obviously a significant talent pool from which the country draw.

In doing so, what they have done is they have made it easy for students to apply for a student visa, and, secondarily, they have made it easy for students to actually go ahead and move directly from student to independent residence. So, in other words, there isn't this artificial barrier, unfortunately like we have in the United States, where students are required to demonstrate—we actually force them to acquire—that they have demonstrated an intent to return, whereas in Australia it is exactly the opposite. They really want them to come, and they want them to stay, and they are going to give them permanent residency to do so.

Similarly, in the temporary residence program, what they have done is that they have created a precertification program which is very similar to what the SKIL bill creates, which basically allows for companies to put in place a mechanism whereby they create precertification that the applications in which all the bona fides of the company are documented at one time. And what this does is it reduces the amount of time that the adjudicators and that the companies have to go and continually repeat the same information about the company, and it allows for the streamlining and the expeditious processing of people coming into the country.

Then what they have done is that they have linked the temporary residence program with the permanent residence program, which in turn allows companies who are compliant to move people straight into permanent residence, which in turn links the two and ultimately allows for consistency and certainty and an ability of corporations to plan.

So there is a lot of forethought that has gone into the structuring of their program, and they have continually tweaked their program to accommodate the needs of business and have been very blatant in the acknowledgment that a skilled immigration is critical for the development of the country. They have blatantly said and they have recognized it, to the point where 70 percent of the permanent residence members are dedicated to skilled immigration versus as in the United States we have got only 16 percent of our permanent immigration to skilled immigration.

Canada and the United States and the United Kingdom have also created similar situations whereby they have focused on skill to recruit top talent, and even a country like Costa Rica has put in place a system whereby the precertification program has reduced their processing time from 4 months to 15 days, all because they have listened to the needs of business and they have listened to the needs of the country to determine that competition is out there and that they have to get their share of talent.

The SKIL bill goes a long way to meeting these needs, and while each of these countries' systems do not necessarily have all of the right answers, certainly the message that we should take from

them is that the worst thing that we could do is nothing. And the SKIL bill goes a good way to addressing our top talent needs.

I will be happy to answer any questions, and once again, we appreciate the opportunity to testify.

[The prepared statement of Mr. Kaplan appears as a submission for the record.]

Chairman CORNYN. Well, thank you, Mr. Kaplan, and thanks to each of you for your opening statements. I have a few questions I would like to follow up to put a little meat on the bone and maybe probe a little bit more on some of the things you have already talked about.

Mr. Ritter, when a company like Texas Instruments cannot find the people with the special skills that you need in order to do your jobs there, what alternatives do you have in terms of your operations, your manufacturing operations here in the United States versus some other country around the world in terms of outsourcing and the like?

Mr. RITTER. The answer may depend on which part of the business, whether it is manufacturing, the inability to retain somebody to do the manufacturing skills or software skills or whatever. But, in general, if you cannot do a critical step of the business process here either from a labor availability point of view or because it costs too much, you are going to do it somewhere else. And so, you know, there are some excellent universities outside the United States. I was in India last week and went to the India Institute of Technology in Madras, and, you know, it is remarkable not only the volume—and you cited some of the numbers, in terms of the number of engineers coming out of places like India and China, but also qualitatively how good these universities have become.

And so for any company that operates on a global scale—and today over 75 to 80 percent of TI's revenue comes from outside the U.S. You know, if we cannot—if we do not have the talent here to do our advanced design and manufacturing work, it will go to the places that do have that talent.

Chairman CORNYN. Let me ask you about a formulation that I have discussed in the past, basically that we have three choices when it comes to this issue. One is we can grow more domestic talent, and certainly we have talked extensively about TI's and other companies' efforts to do that in conjunction with the universities like the University of Texas at Dallas. Number two, if we cannot grow enough domestic talent, we have got to have a more expensive H-1B visa program so we can import that talent. But if we fail to do number one and number two, we fail to have the sufficient skill and talent to perform these jobs, do you agree with me that the only alternative is to outsource that work to other countries and the associated economic activity will no longer take place here in the United States and the jobs that go with it but, rather, in those countries where the jobs are outsourced?

Mr. RITTER. It is inevitable. I mean, smart people are a proxy for economic wealth, you know, long term. I mean, you think about—you look at the history of TI, for example. Jack Kilby in this community invented the integrated circuit in 1958, and it was a great innovation, and it wound up becoming, you know, a huge, multi-



billion- dollar global industry. Well, Jack was one very, very smart guy who made a critical breakthrough invention.

Well, you know, if you have got a lot of smart people who are working together in a community, at a university or at company, or in kind of closer dynamic for both innovation and economic growth, you are going to get jobs, you are going to get investment like the facility that is going up down the road. But if those people are not here, if they are not allowed to stay, if they are going somewhere else, then we won't. We won't get it here, and those jobs will be outsourced.

Chairman CORNYN. Well, some have suggested on the floor of the United States Senate that we ought to somehow penalize companies for outsourcing jobs to other countries. I think several commentators on cable news and elsewhere regularly have segments on the American companies outsourcing jobs and criticizing them for doing so. Why can't Congress just pass a law and say that American companies cannot outsource jobs to other countries, even if they cannot find labor here in the United States? What would be the impact?

Mr. RITTER. It makes absolutely no sense. You know, the assumption that something as dynamic as certainly our industry or the high-technology industry is always going to remain the same and you are going to have the same number and kinds of jobs in a community like North Texas today that you did 5 years ago or that you will have 5 years from now makes absolutely no sense. We need to be focused instead on: How do we constantly climb the technology ladder? How do we innovate to get to the next step? How do we create new industries and new jobs in the community that do not exist today?

Some of the research that is going on in nano- electronics, for example, here at UTD is going to result in economic activity, entrepreneurial outfits, new job creation, you know, 5 and 10 years from now. We cannot even predict what it is going to look like today. That is the dynamic we have got to encourage rather than trying to lock in the status quo and think that everything that we have got here today is going to remain the same forever, because it will not.

Chairman CORNYN. Ms. Norman, when your hospital hires nurses, could you expand on what you do to try to hire U.S.- based nurses and only then turn to foreign nurses? And could you tell us, is your search based on merit alone, or is it based on other considerations?

Ms. NORMAN. Our preference is to recruit domestic nurses. We would like to be able to grow all the nurses that we need in our community, and so we have a number of initiatives available, scholarships, work-related programs to support nursing students. We lend faculty to universities. We do any number of things to try and grow enough, if you will, to be able to support our needs.

However, you know, the fact of the matter is there are more attractive careers. People are looking elsewhere. Looking in this room at the number of women that are here now, 4 years ago that would not be the case, is my guess. When I went into nursing, that was a different story, and that was about 40 years ago.

So we do make every attempt, and much is going on in the country, to try to educate the number of nurses that we need here. However, that is just not enough, and so we need that external talent right now. It would be great in the future if we could overcome these difficulties, and with all the efforts, possibly we will get there. But it will be a long time, and so we cannot afford to have the interruption.

So in looking at a nurse, what we look for are the qualifications: that they have graduated from an accredited program, that they are licensed in the State, and we then have competency-based evaluations as they come into the workforce to determine do they really have the critical thinking abilities that they need for us to even work with the individual. And then we design special programs for them to get them up to speed.

Chairman CORNYN. As we have discussed, there is obviously a huge shortage of qualified nurses in America, and the Department of Labor has designated the profession as a shortage occupation. In other words, the Federal Government has acknowledged exactly what you have testified to here today. But then those same nurses that the Federal Government says we need are subject to an annual green card limit that has been talked about, which, of course, seems entirely inconsistent.

Do you have any opinion as to how we got ourselves into this mess? In other words, how is it that we have been unable to attract more students into nursing schools? And how is it that we have created policies that seem so inconsistent in terms of what the needs of the community are and access to good nurses?

Ms. NORMAN. Well, I have already mentioned that other careers are more attractive, but the number one factor related to not being able to produce enough nurses is the shortage of faculty, qualified faculty at the doctorate level. And the fact of the matter is salaries are so low for faculty members that academic institutions cannot compete with hospitals and the rest of the health care industry in paying the kinds of salaries that practicing nurses get. So that is the number one factor. Much is being done at all levels, really, to address this as much as possible.

Chairman CORNYN. If there are not enough nurses, why don't market forces increase, force the increase in pay that would attract more people into the field?

Ms. NORMAN. Well, it is moving up. Nursing salaries are moving up. But it is the academic institutions that have certain policies that prevent nursing faculty from making more than other faculty members.

Chairman CORNYN. And as you say, the other piece of the puzzle is not having enough teachers, people teaching people how to become nurses here, too, for the reasons you—

Ms. NORMAN. But there are special programs in Texas, special grants that are made available for individuals who want to get a master's or a doctorate degree in nursing, if they will stay in teaching then in an academic setting for a certain period of time.

Chairman CORNYN. And there are a lot of things, as you say, that are being done at the local level by hospitals volunteering some of their nursing staff to serve as teachers and provide for that shortage?

Ms. NORMAN. Correct.

Chairman CORNYN. I mean, there is a lot going on at the local and State level, even while the Federal Government continues to be part of the problem because of the caps on the green cards and the like.

Mr. Kaplan, I was very much interested in what you had to say about how other countries prioritize their visas for the people who have the kinds of skills that they know they need in order to compete in a global economy. And as you have said, only 16 percent of American visas go to skilled immigrants, and about half go for family members. I guess you should say we have kind of a family-oriented immigration policy rather than a skill-oriented immigration policy. Is there some way we can focus more on skills yet still be family friendly, in other words, allow families to be unified and not separated? Because I hear that complaint quite a bit, that even for people who do get green cards, sometimes it may take, because of caps, country-related caps, 8, 10 years for a close family member to also come to the United States.

Mr. KAPLAN. It is a very interesting point because, you know, the U.S. really does put an emphasis on family reunification, and it is an integral part of our immigration policy. And it is very valuable and it is very important, and it should not be, you know, not considered relevant.

However, if you look overseas, I think that what some other countries have done is that they have actually recognized that issue as well, and what they have done is they have recognized that the family component is very important. In some countries, they have actually gone even a little bit further than we have gone, to the point where—I will give you an interesting example. In the Australian immigration debate, there was always this argument about the cost of family immigration, because the Australian—it is quite interesting. The Australian economy is very much more socialist, of course, than we are. Yet at the same we are worried about the cost of immigration. And they did an analysis of the cost of parent-related immigration, which was really interesting, and they did an analysis as to how to taper that versus skilled immigration. And they have come up with an economic-based program which allowed parents who are not going to be a drain on the economy to come in.

Having said that, they did—you know, for us it is possible to balance by allowing—the SKIL bill goes a long way to accommodate issues like that because what it does is it allows for the numbers to increase, which in turn does not detract yet from the family-based system, which is what other countries have done, with a lot of increase in the skill-based, and there is a lot of focus on skill-based and based on what the needs of a country have been.

For example, in some countries you will find that you get—in a points-based system, you are going to be given points for skill, age, language, as well as in some cases family members that are already based in the country. So once again, while we cannot achieve the final result, you know, right away, what the SKIL bill does is it does give us the ability to at least increase our skill base, but at the same time not damage what really is somewhat of—

Chairman CORNYN. By accepting certain high-skilled students from the—

Mr. KAPLAN. That is correct.

Chairman CORNYN. Graduates from the cap.

Mr. KAPLAN. That is correct.

Chairman CORNYN. It allows us to accomplish both of those goals.

Mr. KAPLAN. Absolutely. Any increase in the permanent number.

Chairman CORNYN. In your practice, have you seen instances where foreign nationals who are studying or working in the United States on temporary visas actually move back to another country or to their home because of frustration within immigration backlogs?

Mr. KAPLAN. Yes, absolutely. There is no doubt that that has occurred, and particularly what—

Chairman CORNYN. Let me just ask, interject: Is that because of a shortage of people working on the process? Or is it because of legal or other impediments that prevent that from moving more quickly?

Mr. KAPLAN. I would suggest that it is a combination of both. I would say that, you know, the current system sometimes makes it just too difficult to have certainty about their long-term future. And there have been a number of factors that have come into play.

If you take, for example, China and India as two countries which have historically delivered foreign students to the U.S. who are really critical, as has been stated here before, what you will find is that in the current global economy there is a concept of the returnee, and that is that people who have studied here are being really sought after to come back to their home countries because the economies of those countries are doing well, there is a significant shortage of management and skill in those countries, and I think it is very difficult for somebody who has no certainty, because the system cannot give them certainty, to look to plain their future in a country where, in essence, if their home country is doing well and there are opportunities for them, it is a big pull to come home. And if things are going to be difficult here because there is just simply no category for them to go into and they really have to fight to stay and fight to remain, I think that it is just much easier to go home, take advantage of the opportunities that home represents and the opportunities and the increase in those countries' economies, and unfortunately, we just simply lose out—all the time, effort, and energy that we have put into training them, giving them an education, and then suddenly they are lost.

Chairman CORNYN. Dr. Daniel talked a little bit about the fact that because of impediments to foreign students coming to study here, other countries have offered attractive packages or made offers to those. Can you tell us, in the global competition for the best and the brightest, if the United States does not step up and deal with issue, as we have discussed here this morning, what countries are in the game and competing with us for those best and brightest students today?

Mr. KAPLAN. Unfortunately, most countries today. So, for example, we have mentioned Australia, significantly. The U.K. is focusing very heavily on the recruitment of foreign students. In Europe,

the European Union is really putting an emphasis on the gathering of some kind of a central university top system which is going to make it much easier for students to go and work in Europe. Singapore has been mentioned, which is a very big part of the glut of the talent pool. And you will find that just those countries alone, just using those as examples, we are really going to be struggling to compete because it is much easier, and they really are encouraged to go to those countries, whereas here it is made very difficult.

Chairman CORNYN. So it sounds to me from your testimony and that of others that while America has been the beneficiary of the migration of the best and brightest of this country over the course of our 200-year-plus history, we stand in danger of moving backwards because other countries are now beginning to compete with us at our own game. Would that be a fair way of saying it?

Mr. KAPLAN. Yes. In fact, it has been stated in the Australian debate that the thing that they worry about most is that the United States will recognize, you know, what the current situation is and fix it. That is part of the debate. That sort of sums it up, I would think.

Chairman CORNYN. So they will prosper if we remain asleep at the switch, is another way of—

Mr. KAPLAN. But the worst thing we could do is nothing.

Chairman CORNYN. Well, ladies and gentlemen, thank you very much for your testimony and for the help you have given us in understanding these important issues. Also, again, to our first panel, thanks for your contribution, Mr. Cooper and Dr. Daniel.

Dr. Daniel, thanks for making the facilities here at University of Texas at Dallas available to us. I hope the testimony we have heard today will add to the debate and will help people understand that the immigration challenge that this Nation faces is not just about border security, it is not just about low-skilled immigration. It is about how can America compete in a global economy and what kind of immigration policy is in our National interest. And the fact that, as this panel has reiterated time and time again, if we do nothing America will lose in that global competition. And the aspirations that I know every generation has for succeeding generations, that somehow their life will be better, their opportunities greater than even those that we enjoy now, that we will not be able to keep that commitment to future generations unless we wake up and correct the mistakes of our current policy—or, as some might say, our current non-policy—when it comes to this area.

On behalf of the Subcommittee, I want to thank everyone for their time and testimony. I particularly want to extend my appreciation to my staff, who have worked hard to make this possible. We have got my chief counsel, Rita O'Connor; Linden Melmed, who is counsel on the Subcommittee, who is my immigration specialist. We have also got a number of folks here from my Dallas staff here who have made this possible here today. So I want to extend my thanks and appreciation to each of them.

We will leave the record open until 5:00 p.m. on Thursday, September 7th, for members of the Committee to submit additional documents into the record or to ask additional questions in writing. So I will just alert you that those may be coming, and if you will

please turn to those as quickly as you can so we can get that information into the record.

With that, the hearing is adjourned.

[Whereupon, at 11:45 a.m., the Subcommittee was adjourned.]

[Submissions for the record follow.]

## SUBMISSIONS FOR THE RECORD



August 29, 2006

Ms. Sharon Grisby  
The Dallas Morning News  
Box 655237  
Dallas, Texas 75265

RE: High-Skilled Immigration

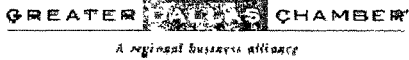
Dear Dallas Morning News Editor:

The United States is facing the greatest challenge to its global leadership in science and technology since the end of World War II. High-tech industries in Asia and the European Union (EU) are growing and becoming more competitive. The high-tech sectors of Japan, China, Taiwan, and South Korea in particular have achieved dramatic growth over the past two decades. As a result, nations around the world are becoming more successful not only in persuading their own scientists, engineers, and other highly skilled workers to remain or return home, but in attracting foreign workers as well. Yet the U.S. government is moving in the opposite direction, imposing arbitrary numerical limits on the entry of foreign scientists and engineers into the country. Continuing on this path tells the rest of the world that our doors are closing to the global scientific community and, in turn, scientific and economic progress. Other nations will reap the benefits and the U.S. will suffer in the long run.

The gross inadequacy of the existing caps on high-skilled immigration is most apparent in the case of foreign professionals seeking to come to the U.S. on H-1B visas (for temporary workers in "specialty occupations") and those applying for legal permanent residence (a "green card") in the EB-2 and EB-3 categories (for professionals, advanced-degree holders, or "persons of exceptional ability"). On July 28, U.S. Citizenship and Immigration Services announced that the Fiscal Year (FY) 2007 cap of 20,000 H-1Bs for workers with an advanced degree from a U.S. university had been reached—over two months before the new fiscal year even begins. This came about two months after the announcement that the FY 2007 cap of 65,000 on all other new H-1Bs had already been met.

The imposition of arbitrary caps on high-skilled immigration is ironic since immigrants have helped build many of the most advanced and internationally competitive industries in the U.S. economy. The diverse contributions of foreign professionals were pivotal in creating the high-tech economy of the 1990s and remain indispensable in maintaining our global preeminence in a wide range of scientific and technical fields. For instance, Indian and Chinese entrepreneurs founded or were running 30 percent of Silicon Valley's high-tech companies in 2000, accounting for about \$20 billion in sales and 70,000 jobs. In 2003, 51 percent of all engineers in the U.S. who had Ph.D.s were immigrants, as were 48 percent of computer scientists with doctorates. Moreover, foreign students on temporary visas earned 44 percent of all Ph.D.s awarded in mathematics and computer science and 55 percent of those awarded in engineering.

The demand for foreign-born scientists and engineers in the U.S. will only increase as our population grows older and the Baby Boom generation retires. Moreover, relatively few native-born students are pursuing advanced degrees in science and engineering. To remain competitive in an increasingly high-tech global economy, the U.S. must make significant investments in math and science education among the native-born, and aggressively recruit skilled foreign-born professionals to fill positions that our workforce is unable to fill. Without such a two-pronged approach, we will not benefit fully from the transnational circulation of ideas and innovations that have fueled scientific and technological advancements in this country since its



founding. As the National Science Board notes, "science is a global enterprise" not limited to particular nations or nationalities.

If the U.S. doesn't want the best scientists and engineers that the world has to offer, plenty of other nations do. Japan and the European Union, for instance, have loosened their foreign labor laws to attract skilled workers from abroad. Other countries are poised to follow suit.

Despite the dual challenge of growing competition for skilled workers abroad and an aging skilled workforce at home, current U.S. immigration policies make it extremely difficult for our country to attract highly educated professionals. Limits on high-skilled immigration that don't respond to actual U.S. labor demand threaten to undermine the preeminence and international competitiveness of the U.S. in scientific and technical fields that are vital to the economy and security of the nation. Arbitrary numerical caps on the entry of foreign scientists and engineers into the country serve only to deprive the U.S. of a precious asset — human talent.

Sincerely,

A handwritten signature in black ink, appearing to read "Jan".

Jan Hart Black  
President  
Greater Dallas Chamber

A handwritten signature in black ink, appearing to read "Ken Menges".

Ken Menges  
Chair, International Business Advisory Council  
Greater Dallas Chamber  
Partner-in-Charge of the Dallas Office  
Akin, Gump, Strauss, Hauer and Feld, LLP



**Statement of Bo Cooper  
Former General Counsel  
Immigration and Naturalization Service  
On Behalf of  
The Global Personnel Alliance  
Washington, DC**

**Hearing before The Senate Committee on the  
Judiciary, Subcommittee on Immigration,  
Border Security and Citizenship**

**on**

**“U.S. Visa Policy: Competition for International Scholars,  
Scientists and Skilled Workers”**

**Thursday, August 31, 2006**

**Statement of Bo Cooper  
Former General Counsel, Immigration and Naturalization Service,  
on Behalf of the Global Personnel Alliance**

**Hearing before The Senate Committee on  
the Judiciary, Subcommittee on Immigration,  
Border Security and Citizenship  
on**

**“U.S. Visa Policy: Competition for International Scholars, Scientists and Skilled Workers”  
Thursday, August 31, 2006**

**Introduction: Immigration and American Competitiveness**

Mr. Chairman, we are grateful for the opportunity to testify today. My name is Bo Cooper. I served as General Counsel of the U.S. Immigration and Naturalization Service from 1999 to 2003, and I now head the immigration practice in the Washington, D.C. office of Paul, Hastings, Janofsky & Walker LLP.

I am appearing on behalf of the Global Personnel Alliance (GPA). GPA is a forum for internationally active companies and business organizations interested in global personnel mobility and related legal concerns. GPA's members span a wide range of industries, from technology to health care to manufacturing. Members range in size from Fortune 500 companies to smaller and even closely held businesses. These are companies for which national immigration policy is important because of the effect of such policies on their ability to compete internationally, to foster innovation, and to create employment in the United States.

The United States has long blazed a trail for innovation. The constant quest for new and better ideas, and for a wider and higher knowledge base, has fueled our global economic leadership. Yet too many analysts to ignore are highlighting the signs that the foundations of American economic vitality are weakening as those in other countries grow stronger. The performance level of U.S. elementary school students in mathematics is sagging. Too few undergraduate students pursue science and engineering. Graduation rates for those fields in China and Japan, for example, approximately double those of this country. In 2004 the U.S. produced about 70,000 graduates in engineering. India produced nearly triple that number, and China produced over seven times that number of graduating engineers. For the United States to maintain its position of leadership, the pipeline of knowledge and skills that leads into our schools, laboratories, hospitals and businesses must not be blocked, whether the source of these skills is within the United States or abroad.

Certainly the policy framework needed to strengthen our competitiveness will reach across disciplines. That framework will need to include educational reforms, an improved commitment to basic research, and advances in many other areas. Without a speck of doubt, though, that framework must include improved programs for high-skilled immigration. Positive

immigration reform is indispensable if the United States is to be the most fertile possible environment for study, science, and commerce.

This country has been able to create a world-leading work force because the United States historically has been open, indeed committed, to the goal of assembling the best minds, and the best possible talent, from wherever that talent could be found. This fits our nature as a competitive nation, one that opens doors to new ideas and one that strives to be the best. Other countries have been watching, and they are pouring massive expenditures, thought, and policy development into replicating that model. They are redesigning their immigration policies precisely to attract the best minds, and to compete for the international talent that might otherwise come into the United States. At the same time, our policies toward high-skilled immigration are having the opposite effect. Delays, denials, and outmoded presumptions are discouraging students from study in our universities at the levels we enjoyed not long ago.

Perhaps even more dramatically, curbs on high-skilled immigration programs are inhibiting the ability of U.S. employers to bring those who do come for study into the workforce for the longer term once their skills have been honed through education. There is not a sufficient path from the university to the work force. There is a drastic shortage of visas for professionals. Permanent residence for the highly skilled takes many years to achieve, leaving workers and their employers in limbo. These same curbs also block the ability of U.S. employers to recruit and retain not only talented professionals who have been educated here, but also those with foreign credentials and experience.

This is not the time for the country to turn its back on foreign talent. When avenues for international recruitment of the best and brightest close down, the effects on American competitiveness are devastating. With other countries only becoming stronger, the United States should be modernizing its programs for high-skilled immigration as an immediate priority.

It should not be difficult to do so. Certainly no subject relating to immigration is without controversy and complexities. High-skilled immigration is no exception. Yet there appears to be strong bipartisan support for high-skilled immigration reform. An effective recipe has already been devised. Strong solutions appear in the comprehensive immigration reform bill passed by the Senate this year. Strong solutions likewise appear in the SKIL bill, which you introduced, Mr. Chairman. As you are of course aware, the SKIL bill was later introduced in the House, and its provisions are included in the Senate-passed comprehensive bill. Moreover, at this year's Senate Judiciary Committee hearing on the economic effects of immigration, there was a strong consensus on the issue. While there was disagreement over the economic consequences of immigration more generally, there was unanimity that high-skilled immigration is a net benefit to the United States economy.

#### **The High-Skilled Immigration Crisis**

One of the core goals of U.S. immigration policy has long been to attract and welcome highly skilled students, scientists, professors, and other professionals from around the world. Yet our law and policy toward high-skilled immigration has not been meaningfully updated in more than a decade and a half. It has fallen years out of alignment with the country's changed

economic and educational needs. The misalignment occurs at each crucial stage of the high-skilled immigration continuum: study, temporary work categories, and permanent residence.

#### *Student Visa Problems*

Many of the world's best and brightest students choose to complete their college and graduate-level education in the United States. Foreign students most frequently come to the U.S. on an F-1 visa. The F-1 visa process has been revised since the 2001 terrorist attacks to include far more extensive enrollment and tracking processes, and far more extensive security check processes. An F-1 visa can be issued only if the visa applicant overcomes an automatic presumption of intent to immigrate permanently to the United States; the applicant must demonstrate an intent to return home after studies are completed. Following the completion of the degree program, most foreign students are eligible for one year of employment for practical training in the United States in a field related to their degree program. Following that one year of practical training, unless another visa option can be found, these highly skilled workers have no choice but to leave the United States.

Prospective students are often faced with tremendous delays because of enhanced security screenings and the presumption of immigrant intent. Offering the world's best and brightest students the opportunity to study in the United States is perhaps the most important means of ultimately attracting the world's best and brightest scientists, doctors, researchers and other highly skilled workers to the United States. The changes that have taken place in the visa process have both altered the perception of the desirability of study in the United States and have increased the difficulty of coming here for those students who wish to do so. When we make it difficult to study here, other countries gain, and we lose.

This problem is compounded by the fact that other countries, including Canada, Australia, the United Kingdom, and others are sometimes viewed as having immigration policies that are more straightforward, more welcoming, and less bureaucratic than those of the United States. When faced with a choice between a country with immigration policies that appear open and welcoming, and one with policies that sometimes appear difficult and closed, many of the world's best and brightest students ultimately decide that the difficulties of studying in the United States outweigh the benefits. This kind of result is a serious blow to the long-term competitiveness of the United States in the global marketplace.

Furthermore, as noted above, current law offers only one year of practical training following the completion of a degree program. This limited period of time is frequently insufficient to allow a U.S. employer to fully evaluate a foreign national student's skills and growth potential, and because of the problems noted below with the unavailability of H-1B visas, there are often times when foreign students cannot continuously work for a U.S. company or maintain their status in the U.S., and thus have to leave the United States.

#### *H-1B Visa Problems*

When a U.S. company wishes to hire a foreign national to perform a highly skilled assignment in the U.S., the H-1B visa, for professionals in specialty occupations, is the most

common – and very often only available – visa used to obtain work authorization. The primary problem relating to H-1B visas is that demand for those visas far outweighs the supply. The 65,000 H-1B cap, an arbitrarily chosen limit, is in no way related to or calibrated to meet legitimate business needs. Not five years ago, this cap was 195,000. In each year since the cap dropped back to 65,000 in Fiscal Year 2004, the supply has failed to meet the need. Moreover, each year it has run out earlier than the year before. It has not lasted past the beginning of a fiscal year since 2004. A new low was set this spring, when H-1B cap for Fiscal Year 2007 was reached more than four months before that fiscal year even began. This has left U.S. employers unable to hire needed professionals for a staggering 16 months. A special exemption from the cap, for up to 20,000 workers who have earned advanced degrees in this country, was an important recent reform, but only a modest one. That additional supply of visas lasted barely through half the summer.

The very low H-1B cap hurts American competitiveness and often forces U.S. employers to shift projects abroad where the highly skilled workers they need are available or can be brought using another country's immigration processes. Difficulty with the H-1B cap dampens the ability of U.S. companies to recruit the best and brightest workers; and it discourages the world's most talented scientists, researchers, doctors, and other skilled workers from considering a career in the United States.

#### *Employment-based "Green Card" Problems*

Almost all nonimmigrant visas providing work authorization are temporary in nature, meaning that there is a maximum stay in the particular visa category. Therefore, in order to employ a foreign national on a long-term basis, a U.S. employer normally must at some point sponsor the foreign national for permanent resident status, frequently referred to as a "green card." In most cases, this process involves first recruiting for U.S. workers to fill the position in question. Only after the Department of Labor has certified that the employer has tested the U.S. labor market and has not found a qualified, willing and able U.S. worker to fill the position can an immigrant petition be pursued.

A statutory cap limits the number of employment-based green cards in each fiscal year. No more than 140,000 employment-based green cards can be issued in each fiscal year, and green cards are categorized issued to spouses and children of foreign nationals obtaining employment-based green cards are also counted against that cap. Current law limits the number of green cards that can be issued to nationals of any one country.

As with the H-1B, demand for employment-based green cards far exceeds supply, and there is a significant backlog in many of the employment-based green card categories. This backlog, which stems from the congressionally-set supply of these green cards, is often called "retrogression." Wait times for employment-based green cards reach nearly half a decade, and are longer for nationals of India and China. This is ironic, because these countries are today key recruiting grounds for experts in key fields such as engineering, mathematics, and the sciences.

These green card delays cause significant problems both for U.S. companies and for foreign nationals proceeding through the green card process. U.S. companies have difficulty

recruiting and retaining top talent because of uncertainty about the permanent residence process, and companies are often unable to promote or relocate key foreign national employees until the green card process has been completed. In addition, companies are forced to invest tremendous resources on patching together a variety of visa options to ensure that foreign nationals can continue to remain in the United States and continue to work for the company while awaiting progress in the green card process.

Moreover, the effect on the employees themselves, and therefore the ability to retain them, cannot be overstated. For this many-year period, highly skilled foreign workers can become mired in the position for which they were originally hired: an appropriate position then, but often not one allowing the professional growth and advancement that the intervening years of learning and experience would support. Even mere changes in work location can cause the process to have to begin anew. Also, during this period, international travel can become more difficult, or even a practical impossibility, for purposes as routine as a business trip abroad or as urgent a death in the family. Spouses often cannot work during this period, causing both professional stagnation and economic hardship for families that need, as many American families do, a second income. While caught in the green card backlog, highly skilled foreign workers face obstacles to home and other loans, obstacles to financial assistance for college, and a host of other practical problems that can quickly jeopardize their retention within the U.S. workforce.

#### **The Consequences of Outdated High-Skilled Immigration Policies: Examples**

##### *Problems for Technology*

In the public debate, the damage to American competitiveness from our outdated high-skilled immigration policies tends most often to be seen from the perspective of the technology sector. This is fitting, because the high-tech sector, as much or more than any other, has exemplified the way that creativity and innovation feed the American economy and create American jobs. It has also exemplified the way in which the search for the best and brightest, and the resulting mixture of American and foreign intellectual talent, can lift or even create an industry. High-tech employers are among those most seriously affected by the outdated and outmoded limits on our high-skilled immigration programs, because of the primary role that innovation plays in their success. Microsoft, for example, has made a cogent and compelling case for the urgent need to open our doors to the best minds worldwide. You will also hear very compelling arguments from other witnesses today on the harm felt within the technology industry. But the problems caused by today's limits on high-skilled immigration are by no means confined to the technology sector. They reach to hospitals and schools, to small and large manufacturing companies, to small start-up businesses, and indeed to businesses of all sizes and across the range of industries.

##### *Problems for Manufacturing*

Let me offer an example from the manufacturing sector. A large manufacturer of business jets, with thousands of U.S. employees, is in urgent need of aerospace engineers with a particular specialty and experience. This company is a major U.S. exporter, has just committed

to a massive expansion of its operations in the United States, and recruits assiduously for U.S. engineers. Of its thousands of employees, fewer than two percent are foreign nationals working in the United States on visas. This spring, after hiring the U.S. engineers it could find, the company had still fallen far short of its hiring needs. In late May it identified a complement of over 30 engineers working for a competitor company overseas. The company was racing the clock, since the publicly available information as of the Friday before Memorial Day was that only about 12,000 H-1B visas remained for the coming fiscal year. The company immediately set about preparing the petitions for the necessary visas, working throughout the Memorial Day weekend in order to petition the following week. Instead, however, the announcement came that the H-1B cap had been hit before the weekend began, and that no new petitions would be accepted. Here, no alternative hiring strategy was possible; the company had already exhausted the available pool of qualified domestic candidates. Instead, the company – a major U.S. employer that is seeking to expand its operations here, and to employ more U.S. workers – was simply left with fewer engineers than it needs, and with its competition abroad having greater access to the necessary talent. There could not be a more stark example of the H-1B program actually failing its policy goal. When companies are blocked from recruiting the talent they need, the cap impedes U.S. production, it diminishes U.S. competitive, and it stunts U.S. job growth.

#### *Problems for Small Business*

These problems affect U.S. employers of all sizes, including small businesses. A case in point is a small but highly specialized company that creates and provides software to enhance and protect network security, improving the safety and security of communications among government agencies in the post-9/11 era. This company employs some sixty persons in this country – all U.S. workers – but badly needed a very specific combination of services and leadership. It found this in a senior British software development manager, but the H-1B cap had just hit and this person was and still is stuck in the U.K. As a result the company has had to beef up its operation abroad to employ and support this person's work, and to take advantage of his leadership. Again and again, in this way, the cap is a serious impediment to innovation and competitiveness, and to job creation and retention in the United States. As in this example, the workers needed are but a tiny percentage of the total workforce. Yet if the research and development or other key expertise cannot be brought here, the jobs will have to move abroad. The impact on all business, large and small, can be disastrous.

#### *Problems in Education*

One glaring and up-to-the-minute example of how high-skilled immigration limits can cause dramatic harm to U.S. education goals involves language education. Last weekend, an article in the Washington Post featured urgent, policy-level efforts to strengthen the capacity of Americans to speak certain key foreign languages. In January, the President announced a \$114 million program, called the National Security Language Initiative, aimed to boost the teaching of critical languages, such as Chinese, in U.S. schools. The State Department heralded the strategy to broaden American's language skills as the kind of broad thinking needed to rise up to challenges "not only to our national security, but to America's standing in the world and the

degree to which American can compete in the world ... compete in the world of ideas, compete in the world of commerce.”

This is certainly the kind of thinking that is needed in order to strengthen American intellectual and economic competitiveness. Yet we are failing as a country to think so broadly about the immigration policies that are needed in order to achieve these goals. At the very same time educators in this country are being urged to expand Chinese language programs, there are not enough qualified teachers and there is no mechanism in place to solve this problem.

Our immigration policies, rather than helping to solve the problem, worsen it. Just yesterday I spoke with a woman from China who this spring earned a Master’s Degree from George Washington University, concentrating in bilingual special education. For at least three reasons, she is precisely the sort of highly educated professional that the United States should be taking into its workforce as quickly as possible. First, she holds an advanced degree from the U.S. university system, and the United States should benefit whenever possible from the abilities of those in whom we have invested educational resources. Second, her specialty is critical to our security and competitiveness. Finally, what she offers lies at the very heart of the country’s long-term needs: the education of the next generation of American innovators. Yet the elementary school system that wishes to employ her is faced with the unavailability of H-1B visas until October 2007, weeks after the start of *next* school year. The period of employment that is permitted for practical training after graduation will not extend to that time. Thus, both the H-1B cap and the limits of post-educational “optional practical training” are obstructing, rather than promoting, the employment of a badly needed professional after her advanced study in this country.

Nor is this problem confined to specialized educational subjects. It is well-known that schools across the country are struggling desperately to find the best, or even sometimes appropriately qualified teachers, particularly in science and mathematics. This is particularly true in inner cities, where the needs are often greatest. Because not enough people are studying in these fields in the United States, there are not enough people to teach in these fields in the United States. A key resource to help fill the gap is the ability to recruit highly-skilled, highly trained educators from other countries. This spring, the human resources team for the public school system of a major U.S. city was in the midst of doing just that. The team had identified a well-qualified group of math and science teachers overseas, with degrees equivalent to a U.S. masters degree, and in some cases even with special training in urban educational systems. But access to the H-1B visas needed to hire such professionals has become a game of chance whose odds drop with each passing week after the filing season opens on April 1 of each year. This school system had the misfortune to be recruiting in late April and May, and the hiring effort had to be abandoned when the cap for the year was hit in record time, even before the Memorial Day weekend. In this situation, faced with severe shortages, these schools typically do not have ready alternative hiring pools. Instead, the result is often one less teacher in a U.S. classroom.

#### **High-Skilled Immigration Solutions**

Effective solutions to the kinds of problems described above have already been designed. One excellent set of solutions was contained in the bill that you introduced, Mr. Chairman, in



May of this year as S. 2691, the Securing Knowledge, Innovation, and Leadership, or 'SKIL' bill. While it includes a broad range of both policy and processing reforms, the SKIL bill is based largely on the premise that (1) it should be easier to enter the country as a student; (2) there should be greater flexibility in finding an appropriate opportunity to contribute to the U.S. workforce, and (3) when that opportunity is found, it should be easier for the worker to move directly to permanent residence under appropriate circumstances rather than being forced into unnecessarily time- and numerically-limited circumstances. The SKIL bill was also introduced in the House of Representatives in June, by Rep. Shadegg and a host of cosponsors.

Moreover, the Senate had already included a thorough and far-reaching set of high-skilled immigration reforms in the comprehensive immigration reform bill that it considered in the spring, S. 2611, and the provisions of the SKIL bill – along with other valuable reforms – were added into the bill before its final passage by the Senate in May. Thus, while the immigration bill passed by the House in December 2005, the Border Protection, Antiterrorism, and Illegal Immigration Control Act of 2005 (H.R. 4437), would do nothing to address the tremendous crisis faced by American businesses seeking the ability to employ the world's best and brightest, the Senate bill includes robust reforms. Among its highlights, S. 2611 features the following:

A broader path to lawful permanent residence for foreign students.

- Two new student visa categories for students pursuing advanced degrees in science, technology, engineering, or mathematics (STEM): "F-4" and "J-STEM."
- F-4 and J-STEM students may receive visas even if they wish to seek permanent residence after completion of studies ("dual intent").
- F-4 or J-STEM status would last through graduation, up to another year while seeking a job in the field of study, and until the government adjudicates the green card filings.
- After graduating and finding a job, F-4 and J-STEM students may begin the green card process, and therefore get work and travel authorization, even if a visa number is not yet available, by paying a \$2,000 fee for scholarships and training for U.S. workers (80%) and fraud prevention (20%).
- All foreign students may work off-campus in jobs unrelated to their field of study, so long as the students maintain good academic standing and their employers have previously tried to hire U.S. workers and will pay appropriate wages.
- Employment authorization for optional practical training may be granted for up to two years (rather than one year under current law).

Relief from H-1B visa shortages. This would be accomplished by:

- Raising the base annual H-1B cap to 115,000 beginning in fiscal year 2007;
- Establishing certain key exemptions from the H-1B cap for certain holders of advanced degrees (STEM and other fields) and employees of nonprofit and governmental research organizations; and
- Establishing a market-based cap increase mechanism.

Relief from retrogression of immigrant visa numbers.

- The annual worldwide level of employment-based immigrants would be increased, unused numbers may “rollover” to later years, and previously unused numbers may be “recaptured.”
- Certain applications for adjustment of status may be filed, even if no green card numbers are available, upon payment of a \$2000 supplemental fee.
- The lengthy delays caused by waiting for green card numbers to become available in the Employment-Based Third Preference (EB3) category would be alleviated by increasing the percentage of immigrant visas allocated to EB3 classification.
- Per-country limits on immigrant visas would be raised; and per-country limits may continue to be exceeded when visa numbers are otherwise unused.

In addition, the proposal would exempt the following groups of foreign nationals from the numerical limits on employment-based immigration (for a total cap of 650,000 per year):

- Holders of advanced STEM degrees who have worked in the U.S. in a related field for three years with a temporary visa;
- Aliens of “extraordinary ability;”
- Outstanding professors and researchers;
- Persons who have received a “national interest waiver” of the normal job offer requirements in the green card process; and
- Immediate relatives of employment-based immigrants.

The bill would also make many other useful changes involving green cards for STEM degree holders, labor certification processing, and other processing.

#### **Boosting the U.S. Workforce**

Finally, employers are not seeking only to expand their ability to hire needed workers from outside the United States. They also understand deeply the need to help expand opportunities for development and excellence within the U.S. Many of these employers expend tremendous resources in outreach to students at all levels to encourage pursuit of the most badly needed fields of expertise. Likewise, many such employers have devised creative formal programs to help meet these goals.

Microsoft, for example, has put in place several major initiatives to expand educational opportunities through technology access and training. Three examples include Microsoft’s Partners in Learning, Unlimited Potential, and School of the Future initiatives.

The Microsoft Partners in Learning National Program delivers curricula, tools, and resources to schools, educators, and administrators across the United States. The programs emphasize information and communication technology (ICT) proficiency and workforce development. In June 2004, the International Society for Technology in Education (ISTE) and Microsoft launched the first U.S. Partners in Learning National Programs online tool at <http://www.iste.org>. This tool is designed to help teachers monitor student progress and meet No

Child Left Behind Act requirements by assessing the technology literacy of middle school students.

Microsoft Unlimited Potential is a global initiative to improve lifelong learning for disadvantaged young people and adults by providing technology skills through community technology learning centers (CTLC's). By providing technical skills training to disadvantaged individuals, the program is designed to expand social and economic opportunities that can change lives and transform communities. Unlimited Potential partners with CTLCs to provide technology, curriculum, and training that can transform a community center that currently provides only basic access to technology into a technology-enabled center for learning and collaboration.

For the School of the Future initiative, Microsoft and the School District of Philadelphia have joined forces to create a 750-student high school that embodies innovation and technology. The goal of the partnership is to create a technology-based educational model that can be replicated in communities around the country and around the globe. The school is scheduled to open in West Philadelphia in September 2006.

Also, there are important measures that are already part of the H-1B program structure to help boost skills and opportunities within the U.S. workforce. Most H-1B employers are required to pay a \$1500 fee when they file petitions, and this sum goes toward U.S. worker scholarships and training. This means that new filings in the H-1B program today generate as much as \$127.5 million each year. This huge annual sum contributes greatly toward educating and training U.S. workers. If the H-1B program is adjusted to meet demand, this contribution will only increase.

### **Conclusion**

High-skilled immigration reform is in reach. Yet the longer it is delayed, the more severe the consequences for U.S. schools and employers, and the more the United States stands to slide in the global competition. GPA appreciates your leadership on this critical issue, Mr. Chairman, and we appreciate the opportunity to try to assist in its resolution.

Testimony before the Senate Judiciary Committee,  
Subcommittee on Immigration, Border Security, and Citizenship,

Hearing on: "U.S. Immigration Policy: Competition for International Scholars, Scientists,  
and Skilled Workers:

Testimony by:  
David E. Daniel  
President, University of Texas at Dallas  
August 31, 2006

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Thank you very much for this opportunity to address the Subcommittee on Immigration, Border Security, and Citizenship. Given my back ground (I am an engineer), and the heavy emphasis at the University of Texas at Dallas on science and technology, I thought that I might best contribute to the work of the Subcommittee by providing information about programs at my university that are aimed at increasing the output of scientists and engineers that our region will need.

The University of Texas at Dallas

Eugene McDermott, Cecil Green and J. Erik Jonsson, the founders of Texas Instruments (TI), were also the founders of the institution that would later become the University of Texas at Dallas (UTD). In the 1950's, McDermott, Green, Jonsson, and their TI colleagues were frustrated by the fact that they were forced to import engineering talent from outside the state, while the region's bright young people pursued education elsewhere. Our founders realized that Texas needed highly educated minds if the state was to remain competitive in the decades to come. They noted that in 1959 alone, Columbia University conferred 560 doctoral degrees - more than the entire Southwest region. They wrote at the time, "To grow industrially, the region must grow academically; it must provide the intellectual atmosphere, which will allow it to compete in the new industries dependent on highly trained and creative minds."

McDermott, Green, and Jonsson established the Graduate Research Center of the Southwest (later renamed the Southwest Center for Advanced Studies) in 1961. The center recruited some of the best scientific talent in the nation. The Texas Legislature concurred with the vision of the Founders and mandated in 1967 that science and technology educational opportunities needed to exist in North Texas. McDermott, Green and Jonsson decided to donate SCAS and its lands to The University of Texas System, and on June 13, 1969, Governor Preston Smith signed the bill creating The University of Texas at Dallas. The SCAS scientists formed the core of UTD's educational infrastructure.

By law, UTD offered only graduate degrees until 1975 when the addition of juniors and seniors increased enrollment from 408 in 1974 to more than 3,300 students. By the fall of 1977, the enrollment reached over 5,300. In 1986, UTD established the Erik Jonsson School of Engineering and Computer Science. In 1990, the Texas Legislature authorized UTD to admit lower division students. UTD's first freshman class consisted of only 100 students. Despite its

small size, this cohort's achievements set the standard for future classes. Since then, freshman classes have grown in size while the university has maintained high enrollment standards.

Some of the key points that summarize UTD today are:

- Enrollment at UTD has grown to approximately 15,000 students, from just 400 in 1974, and is anticipated to grow to at least 25,000 students in years ahead
- 80% of all our graduates earn degrees in science, mathematics, engineering, and business, the key disciplines that the region needs to compete in the global economy
- Our freshman class has the highest average SAT score of any public university in Texas
- Half our baccalaureate degrees are awarded to first-generation college graduates

#### Needs of the Metroplex

The DFW Metroplex is one of the nation's largest and most economically productive metropolitan areas. The Metroplex now ranks as the nation's fourth most populous, and is similarly ranked in terms of economic productivity. The Metroplex is home to about one-fourth of Texas's residents, and produces about one-third of the State's Gross State Product. If the Metroplex were a nation, it would rank 21<sup>st</sup> among nations, trailing Switzerland, Belgium, and Sweden, and just ahead of Norway, Denmark, Turkey, and Hong Kong.

Statistical information on employment shows that the Metroplex has one of the highest concentrations of technology workers of any metropolitan area in the nation. The region has a huge demand for talented scientists and engineers.

Perhaps the best example of how a major research university can assist with economic development is the recent decision of Texas Instruments to build a \$3B microchip manufacturing facility in Richardson, about 2 miles from the UTD campus, rather than Singapore. The project is estimated to have an economic impact to the region of more than \$10B. But in its decision to build the plant in the Metroplex, TI felt it was critical to enhance the engineering capacity of UTD's school of engineering. The TI leadership believed that a strong and vital research university in the sciences and engineering located in the Metroplex is essential for TI's long-term competitiveness. An agreement was reached between TI, the State of Texas, the University of Texas System, and UTD that is pumping \$300M into UTD. The immediate goal of the program is to elevate UTD's engineering school to a position among the nation's top-50 ranked engineering schools. The project includes an \$85M Natural Science and Engineering Research Laboratory, funds to attract the nation's best engineering faculty and researchers, and a \$100M private fund raising effort that will focus on endowed chairs for outstanding professors and fellowship support for talented graduate students. The project, from both TI's and UTD's perspective, is on schedule.

### Efforts to Increase Our Output of Science and Engineering Graduates

UTD has several programs in place to increase output of the critical talent that the region will need, and to attract students from the Metroplex, state, and nation to UTD. Several are described below.

**University of Texas System Investment.** The University of Texas System Board of Regents announced on August 10, 2006, an unprecedented investment of \$2.56 billion to boost competitiveness in key scientific areas. The UT System will launch 22 capital construction projects (\$1,526,630,000) for Fiscal Year 2007, bolstering the System's science, technology, engineering and health infrastructure. The projects are in addition to 22 others approved by the Regents since August 2005 totaling \$954,395,000. These additional investments, coupled with faculty recruitment and smaller campus renovation projects for science and technology, brings the total investment by the UT System to \$2.56 billion in the current and next fiscal years.

This investment is the largest commitment to science and technology infrastructure that has been made by a higher education system in the country since the National Academies' recent call for a comprehensive effort to bolster U.S. competitiveness in its report, *Rising Above the Gathering Storm*. These capital projects are focused on providing the UT System academic and health institutions with state-of-the-art equipment, facilities and start-up packages designed to recruit the world's brightest research scientists and faculty and to provide a world-class education in the sciences, technology, engineering, and health professions. This program- is designed to bolster the State's global competitiveness and assure that the State has the essential educational infrastructure needed to produce the scientists and engineers that will be needed to maintain a strong competitive position. According to UT Chancellor Mark Yudof, "It is critically important to Texas and to the nation to turn out more engineers, more nurses, to do the cutting-edge research, to develop new products and medical treatments, to establish new businesses and new industries in our state." This effort will add more than 5 million gross square feet of space including more than 3 million square feet – or a 30 percent increase – in research space.

**University of Texas at Dallas Investments.** UTD has two major capital projects underway. The first, mentioned earlier, is an \$85M Natural Science and Engineering Research Laboratory, and was developed as part of an integrated plan to expand Texas Instruments' manufacturing capacity in the Metroplex and to expand significantly the engineering capacity of UTD's School of Engineering and Computer Science.

The second project is a \$27M *Math, Science, and Engineering Teaching-Learning Center*. This new facility will focus on research-based education in math, science and engineering. It will also serve as a major lab for research on effective teaching and learning techniques in this field, both at the college level and through a full range from K through grade 12. It will serve as a "best practice" center for K-12 educators, providing more teachers with an opportunity to learn to teach math and science more effectively.

Erik Jonsson School of Engineering and Computer Science. The Erik Jonsson School of Engineering and Computer Science is in a process of rapid expansion. Some key facts about the School that relate to human resources are as follows:

- For the second year in a row, UTD conferred the most computer science degrees in the nation—at the B.S., M.S. and Ph.D. levels combined, according to the American Society of Engineering Education data.
- UTD ranks fourth in the nation when you combine all degrees awarded in electrical engineering and computer science, which are critical needs in the North Texas economy
- UTD also ranks first in the total number of computer science degrees awarded to women and second in the number of female tenured/tenure track computer science faculty members within an engineering school.
- More than 800 high-tech firms are located within a five-mile radius of the UTD campus, and make up one of the largest high-tech areas in the United States. This offers students excellent co-op, internship and employment opportunities, and the School works very closely with local industry.
- A new “get doc” program has been launched successfully. The program is designed to encourage outstanding baccalaureate degree recipients to continue on at UTD for PhD degrees. This program directly addresses the challenge of encouraging domestic students to continue on for advanced degrees in engineering. Although small, we have found that the program is very attractive in encouraging students to go on for advanced degrees.
- The School has numerous outreach programs and youth camps for the K-12 and community college communities, in partnership with the entire university.

NanoExplorers Program. One of UTD’s most exciting outreach programs is called the “NanoExplorers” program. One of UTD’s best known scientists is chemist Dr. Ray Baughman, who has achieved international recognition in the past year for manufacturing nano yarns and for developing nano-material artificial muscles. Dr. Baughman founded the NanoExplorers program based on his own experience as a child. As a teenager, Ray Baughman had an experience that changed his life. He showed up unannounced at Professor George Jeffrey’s lab door at the University of Pittsburgh and asked for a job. “The wonderful opportunity that he gave me – to do original research when I was in the 10th grade – was so important for my entire life,” said Dr. Baughman.

In the spirit of his mentor, the NanoTech Institute initiated the George A. Jeffrey NanoExplorers program. The program promotes nanotechnology-based education for the next generation of scientists and is funded by the Robert A. Welch Chair grant Dr. Baughman received in chemistry. The NanoExplorers program was launched in the summer of 2002, when about a dozen high school students were invited to work on original research in the institute’s

labs. To get involved, students must contact the institute and volunteer to work in the research labs. The program does not involve grades or credits. It is truly science for science's sake.

Training on lab safety and proper research techniques are the hallmarks of the program. Once lab procedures are mastered, students are guided by programs formulated by researchers. Later, NanoExplorers are free to choose their own research paths. "It's amazing what advances very young people can make if they become interested in a problem," Dr. Baughman said. NanoExplorers have coauthored scientific papers and developed and defended posters explaining their research.

An estimated 30 high school students have gone through the NanoExplorers program since its inception. Some become UTD students, others go on to Harvard, Stanford and MIT. Many come back to study at the institute each summer.

"Once a NanoExplorer, always a NanoExplorer!" as the saying goes.

Academic Bridge Program. The Academic Bridge Program was founded at UTD by Dean George Fair, and was established to serve under-represented, first-generation college students. The programs mission is to attract, support, and retain students who have ambition but who have not completed the full university-track curriculum or established the type of academic credentials that would automatically earn admission to highly selective institutions such as UTD.

The program recruits graduates from target high-school districts: Dallas, DeSoto, Duncanville, and Lancaster, although nearly 60% come from the Dallas Independent School District. Almost two-thirds of the students are African-American and Latino. The program provides on-campus housing for two summer months and covers tuition and fees for 7 semester credit hours during the summer. Typically, about 30 students enter the program each year.

Perhaps the most impressive aspect of the program is the high graduation rate of those who enter the program. The 2000 cohort, for example, has a 70% graduation rate.

This program demonstrates that through outreach, engagement, and a program of financial support, high school students who might not be automatically admitted to highly selective institutions such as UTD can succeed.

Other UTD Programs. The University has a number of programs that are designed to interest pre-college students in mathematics, science, and engineering. These include:

- Summer camp for middle school girls who have an interest in physics, designed to help students learn about and become comfortable with the world of physics, focusing on making physics interesting and exciting.
- Awesome math summer program (Grades 7-11), an intensive 3-week summer program for 80 youths designed to prepare students for Math Olympiad competition and to develop further the students' interest in mathematics.



- Summer research programs for high-school students designed to increase awareness of and appreciation for science, offer by the Department of Biology and by the Sickle Cell Disease Research Center.
- Chess summer camps, which provide chess training for youths beginning at age 7, taught by members of UTD's championship chess team, and designed to develop further the student's chess and analytical skills.
- Summer programs for advanced placement teachers, which attract 600 advanced placement teachers each summer to enhance knowledge and instructional skills, particularly in chemistry, biology, mathematics, and computer science.

#### International Students

A high percentage of UTD's undergraduate students are Texas residents, but like most graduate programs at U.S. universities, especially in the sciences and engineering, there is an inadequate supply of domestic students to meet the personnel needs of our increasing research programs or the needs of employers. We value these outstanding international scholars who strengthen the intellectual climate of UTD and enrich the overall cultural experience for all students. The challenge is to maintain balance between the numbers of domestic and international students. To meet the needs of our region and to maintain balance, we continue to aggressively recruit outstanding talent from within the Metroplex through the outreach programs such as those described above.



**American Council on International Personnel**  
**1212 New York Avenue, NW, Suite 800**  
**Washington, DC 20005**  
**• 202-371-6789 • Fax 202-371-5524 • [www.acip.com](http://www.acip.com)**

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**Testimony of Lance Kaplan**  
**Before the Senate Subcommittee on Immigration, Border Security and Citizenship**  
**U.S. Immigration Policy: Competition for International**  
**Scholars, Scientists and Skilled Workers**  
**August 31, 2006**  
**Dallas, Texas**

### **Introduction**

Chairman Cornyn, members of this distinguished subcommittee, thank you for the opportunity to testify before you today. My name is Lance Kaplan. I am here on behalf of the American Council on International Personnel (ACIP). ACIP represents nearly two hundred in-house immigration professionals at America's leading corporations, universities and research institutions, all of whom have substantial interest in facilitating the global mobility of highly-educated professionals around the world. I am also a Partner with the firm Fragomen Del Rey Bernsen & Loewy LLP., and am responsible for overseeing the firm's Global practice. Fragomen has twenty-seven offices in ten countries and assists an international clientele with the mobility of their highly skilled professionals across international boundaries. I am happy to share with this subcommittee my professional experience with, and insight into, measures that countries outside the United States are taking to recruit the world's best talent and to stay ahead in the race for innovation.

### **The Nexus Between Access to Talent and Competitiveness**

To understand the importance of highly-educated foreign professionals with respect to a country's competitiveness, one must first have a clear view of the role of global mobility in today's economy. The twenty-first century economy provides unparalleled opportunities for collaboration and innovation. Research projects funded by multiple countries bring scientists from around the world together at America's leading research institutions; these projects can last for twenty years or more. Universities trade faculty and students to promote the exchange of culture and ideas. Demand for international higher education is expected to reach 7.2 million by 2025, up from 1.8 million in 2000.<sup>1</sup> Some universities actually have affiliations and exchanges with hundreds of partners around the globe,<sup>2</sup> and corporations compete for contracts and access to markets around the world. Furthermore, the United States Trade Representative estimates that services account for about three quarters of U.S. gross domestic product (GDP), and eight out of ten jobs.<sup>3</sup> It is estimated that three-quarters of the value of America's publicly traded companies

<sup>1</sup> Bohm, Davis, Mears and Pearce, *Global Student Mobility 2025*, IDP Education Australia (Sept. 2002).

<sup>2</sup> Testimony of Dr. Adam W. Herbert, President, Indiana University. Hearing Before the Committees on Foreign Relations, United States Senate, 108<sup>th</sup> Cong., 2<sup>nd</sup> Session (Oct. 6, 2004).

<sup>3</sup> *U.S. Submits Revised Services Offer to the WTO*, Office of the United States Trade Representative, Press Release (May 31, 2005).

comes from intangible assets (e.g. patents, technologies and brands), up from forty percent twenty years ago.<sup>4</sup> In this knowledge-based economy, the key to success of any venture is having the right talent in the right place at the right time.<sup>5</sup>

The competition for talent is not an issue confronted only in the United States. According to a recent survey, almost half of all British business leaders plan to recruit MBA graduates from China to compensate for a shortfall of skills – notably language skills – needed to work in and trade with the country.<sup>6</sup> Declining birthrates have caused some industrialized countries to face an even more acute skills shortage than that which exists in the United States. At the same time, developing countries are increasing efforts to entice their domestic talent to study and work at home. The Chinese, for example, are determined to create a super-league of universities to rival the best in the world.<sup>7</sup> A key component of corporate strategic planning is to recruit, hire and retain the best talent available, be it local or foreign. Whether a particular country's political policies foster or impede access to talent is becoming an increasingly important factor in decisions about where to invest and where to conduct research and operations.<sup>8</sup>

Historically, U.S. immigration law has accommodated the many different situations in which our companies, universities and research institutions employ highly-educated foreign professionals. In general, our immigration system is designed to bring four types of workers into the United States. These types are comprised of short term visitors for business, intra-company transferees, qualified workers in fields where we have a labor shortage, and the absolute best in the field who can give the United States a competitive edge. Temporary assignees perform a variety of functions, ranging from meeting with clients or others in their organization, to working on a project that may be part of a global contract, or to establishing a new operation for the parent company. Think of global sales and marketing teams that must collaborate in the United States to oversee the launching of a new product. Others come for a longer time as international transferees, such as high-level managers and executives, as well as professionals with specialized knowledge. These individuals could be the Japanese automobile executives overseeing U.S. manufacturing facilities or Swiss bankers in New York. Some represent the “best and brightest” talent in their specific discipline, and because of that their presence is essential in ensuring the success of research or the attainment of business goals. Imagine the researchers looking for the causes and cures of the bird flu. These professionals may come on temporary visas but, in most instances, it is to the employer's and the country's advantage to retain them on a permanent basis.<sup>9</sup> Finally, a small but important number of foreign professionals fill the needs of U.S. employers when a sufficient number of U.S. workers are unavailable. Often, these workers are graduates of U.S. universities, particularly in the fields of science, technology, engineering and mathematics, and work in research and development laboratories of our leading corporations or teach classes at our most prestigious universities.<sup>10</sup>

<sup>4</sup> Frances Cairncross, *The Idea of A University*, Global Agenda, at 226-27 (2006).

<sup>5</sup> *The Global Economy's Last Barrier: Cross-Border Mobility of Highly Educated Workers*, The Executive Working Group on Global Mobility Policies, Jan. 2002, at 17.

<sup>6</sup> Peter Walker, *The Challenge of China: How No Business School Can Ignore the New Giant*. CNN.Com (Aug. 14, 2006).

<sup>7</sup> *The Economist*, 9/8/05

<sup>8</sup> *The Global Economy's Last Barrier*, at 11-13.

<sup>9</sup> *Id.* at 17-21.

<sup>10</sup> Michelle Wucker, *Lockout: Why America Keeps Getting Immigration Wrong When Our Prosperity Depends on Getting It Right*, at 119-121 (Perseus Books Group 2006).

The important point is not to list all of the situations in which foreign professionals are employed in the United States but to recognize that our historic openness to foreign workers and our flexible visa categories have enabled us to respond to changes in market forces, thereby giving the United States a great competitive advantage over other nations. The United States remains today the world leader in innovation, but other countries are working hard to catch up. Our current visa policies are making their job easier by keeping the best global talent out of the United States.

### **Problem with the Status Quo**

Despite the clear need for foreign professionals, our door is becoming increasingly closed to such individuals. Obstacles include months-long, and sometimes years-long, visa processing delays, arbitrary quotas limiting the number of professionals who can come to work each year, layers of “red-tape” that drain an employer’s resources, and a general “anti-immigration” attitude that makes foreign professionals and their families feel unwelcome. In fact, at no time in our nation’s history has the access to talent been as limited as it is today. Most illustrative of this fact is that the fiscal year 2007 quota for H-1B visas (used to hire, among others, foreign graduates from U.S. universities) was exhausted on May 26, 2006. Even the additional 20,000 visas set aside for holders of advanced degrees (meaning a master’s degree or higher), were gone by July 26, 2006. This means that companies must wait fourteen to sixteen months, or until the start of fiscal year 2008, to hire needed personnel.

In addition, there are significant backlogs in our permanent or “green card” system. We recently experienced backlogs where even some professionals deemed to have “extraordinary ability” or “exceptional ability” have had to wait several years – and these are the Ph.D. scientists at the cutting-edge of research. Other desperately needed professionals face an even longer backlog.<sup>11</sup> These backlogs are due to politically imposed numerical limits. There is nothing to suggest that these quotas are based on any economic principle. Even where a visa is available, there are months-long delays in processing an application and obtaining a visa interview, which result in significant losses to our businesses and research facilities. Moreover, the lack of visa numbers means that talented foreign students who are educated in our finest institutions and in whom we have invested our resources and knowledge have no means to remain in the United States to enrich the nation in which they developed much of their skill. Even when they do have the option to seek a visa, some choose to forego the uncertainty and frustration of waiting in the United States to pursue opportunities elsewhere. In sum, our current immigration system is a tremendous impediment to our ability to compete worldwide.<sup>12</sup>

Our self-imposed limitations put America at a grave disadvantage. As a nation, we are educating some of the brightest scholars and researchers from around the world, only to send them to our competitors because there are no visas available.<sup>13</sup> Many companies have moved meetings, training and projects abroad to avoid visa problems and barriers. The current situation also sends the world a dangerous message that foreign talent is no longer welcome here.

<sup>11</sup> U.S. Dept. of State, Bureau of Consular Affairs, *Visa Bulletin*, Sept. 2005, Aug. 2006.

<sup>12</sup> See, e.g., Jeffrey Natchigal, *Access Denied, Are Tightening Security Measures Harming Science at Cal*, Berkeley Science Review, Vol. 4, No. 1, at 19-23 (Spring 2004).

<sup>13</sup> See, e.g., *Visa Policies Rob U.S. of a Valuable Labor Source*. Dallas Morning News (Aug. 7, 2006).

The reality for American employers is that our education system does not produce a sufficient number of professionals that are able to compete in today's economy. As evidence of our changing economy, job opportunities that require a degree are rising at twice the rate as those requiring only on-the-job training.<sup>14</sup> Some estimate that by 2010, ninety percent of all science and engineering Ph.D.s will come out of Asia.<sup>15</sup> According to the National Science Foundation, in 2000, foreign-born scientists accounted for over fifty percent of U.S. engineers with a Ph.D., and forty-five percent of our life scientists, physical scientists and math and computer scientists holding doctoral degrees.<sup>16</sup> These percentages are only increasing over time as our children pursue other degrees. While we must work to encourage U.S. youth to pursue these careers, we also must recognize the global nature of the economy and market for highly-educated professionals. Experts have warned that with fewer foreign science and engineering workers, fewer U.S. citizens with science degrees, and increased competition from abroad, "the U.S. [science and engineering] work force growth will slow considerably, potentially affecting the relative technological position of the U.S. economy."<sup>17</sup>

Exacerbating the problem is that our share of foreign students has declined in recent years. Although the United States has managed to remain the predominant destination for foreign students, accounting for forty percent of internationally mobile students in 2004, this percentage is on a definite downward trend. According to the Council of Graduate Schools, there was a twenty-eight percent decline in the number of applications from international students to U.S. graduate schools for the 2003-2004 school year, followed by another five percent decline in 2004-2005.<sup>18</sup> For the 2005 to 2006 school year, enrollment climbed back up by twelve percent from the previous year, but that still does not bring us back to the pre-2001 level.<sup>19</sup> We must recognize that international education is a fact of life in the Twenty-first Century economy, with both companies and universities clamoring for these "global nomads" who have the language and cultural skills to live and work in multiple societies.<sup>20</sup> Yet, among industrialized nations, the United States ranked 12<sup>th</sup> in percentage of foreign students among its total student population, at about four percent. Australia leads the industrialized world with approximately seventeen percent.<sup>21</sup>

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<sup>14</sup> *The Idea of a University*, at 226..

<sup>15</sup> Mervis, Jeffrey, *Perceptions and Realities of the Workplace*, Science, Vol. 304, Issue 5675, 1285-85 (May 28, 2004).

<sup>16</sup> *Science and Engineering Indicators-2004*, The National Science Board, National Science Foundation, at O-13, O-5 (2004).

<sup>17</sup> *Science Board Warns of Uncertain Future for US Science and Engineering Leadership*, Physics Today, (Jul. 2004).

<sup>18</sup> Heath Brown and Maria Doulis, *Findings from 2005 CGS International Graduate Admissions Survey Phase III*, Council of Graduate Schools (November 2005).

<sup>19</sup> Heath Brown and Emily Neubig, *Findings from 2006 CGS International Graduate Admissions Survey, Phase II*, Council of Graduate Schools (August 2006).

<sup>20</sup> Antje Schiffler, *Business Schools Court Globetrotting Students*. Wall Street Journal-College Journal. Found on <http://www.collegejournal.com/mbacenter/newstrends/20050209-schiffler.html>.

<sup>21</sup> Richard L. Florida, *The Flight of the Creative Class*, at 148 (Harper Collins 2004).

Meanwhile, our existing workforce is shrinking. Currently, the fastest growing segment of the American labor force is one that consists of workers between the ages of fifty-five and sixty-four. More than 40 percent of our workers will reach retirement age by the end of this decade. While the number of workers close to retirement age grows, the number of workers between the ages of thirty-five to forty-four will be seven percent lower. By 2020, the skilled labor shortfall is predicted to be around fourteen million. Even our government will be adversely affected by the labor shortage. According to recent reports, about forty percent of those who work for the National Aeronautics and Space Administration (NASA) are over fifty years old, and the ratio of the number of employees over sixty to those under thirty is three-to-one.<sup>22</sup> The outlook for the manufacturing sector is bleak as well, unless we take measures to enable an influx of skilled workers.<sup>23</sup>

The answer to this anticipated skilled labor shortage lies in both our education system as well as in our immigration system. If we cannot expect to produce a sufficient number of science and technology professionals domestically, then we must rely on our ability to recruit and retain international talent. However, that ability is hindered by political obstacles. One such obstacle is that our immigration laws have been, at best, reactionary measures and address only narrow and short-term needs. At worst, our lengthy legislative process causes whatever policy we create to be a step behind the marketplace's reality. Fortunately thus far, despite the obstacles to recruiting or retaining the necessary talent for American employers, there remains one advantage that the United States still has over virtually all other countries: we are the greatest democracy on the face of the earth and people want to live here. Aside from purely economic considerations, many executives and managers want to stay here for the quality of life and the freedoms upon which this country is based. In addition to some of the finest research and educational institutions in the world, we also have the most robust laws to protect entrepreneurs and businesses. However, even the appeal of living and working in a place of such opportunity cannot indefinitely compensate for the shortcomings of our immigration system. If our immigration policies and practices continue to deter the recruitment or retention of the best the world can offer, the top talent will go elsewhere and we will find ourselves watching other countries prosper at our expense and loss.

#### **Recent Initiatives**

It is encouraging to see a growing recognition of how American competitiveness depends on our access to talent. In this year's State of the Union Address, President Bush unveiled the American Competitiveness Initiative, an effort designed to encourage innovation in the U.S. economy and to give American students "a firm grounding in math and science." According to a White House press release, President Bush's strategies for achieving American competitiveness include "attracting and retaining the best and brightest to enhance entrepreneurship, competitiveness, and job creation in America by supporting comprehensive immigration reform." Although President Bush did not specifically mention the need for additional visas to recruit and retain global talent, he highlighted the need for the United States to excel in the areas of "physical sciences" and "nanotechnology, supercomputing, and alternative energy sources."<sup>24</sup>

<sup>22</sup> Ira S. Wolfe, *Labor Storm Watch – The Perfect Storm Is About to Sweep Us Over* -, Business2Business (Feb. 2006).

<sup>23</sup> David L. Bartlett, *Building A Competitive Workforce: Immigration and the U.S. Manufacturing Sector*, Immigration Policy in Focus, Vol. 5 Issue 6 (Aug. 2006).

<sup>24</sup> White House Press Release (Jan. 31, 2006), found on <http://www.whitehouse.gov/news/releases/2006>.

On Capitol Hill, the most significant development this year is the introduction of Senate Bill 2691 and House Bill 5744, the Securing Knowledge, Innovation, and Leadership Act of 2006 (SKIL Act), that the distinguished chairman of this subcommittee and Congressman Shadegg of Arizona introduced. If enacted, the SKIL Act would make America more competitive by ensuring adequate numbers of visas and eliminating some of the red tape that plagues our system.

### **What Other Countries Are Doing to Compete for Talent**

While we Americans are beginning to recognize the nexus between immigration and competitiveness, other industrialized nations are also making efforts to use their immigration policies as a tool to promote competitiveness and growth. In fact, until recently, many sought to emulate our policies. Today, they are moving ahead of us. Many countries are realizing that the concept of “localizing” employees at a host company site is no longer appropriate for today’s mobile worker. Some countries have joined with business groups to devise plans to expedite the work permit application process and to ease the transition from student, to temporary, to permanent status. Generally, there are some trends that are common among the industrialized nations. For example, many countries either have or are proposing systems that favor highly skilled workers, high level executives and entrepreneurs. Some provide work visas for spouses as an incentive to immigrate. Others recognize the benefit of recruiting students to study and retaining them after graduation. Just as the United States has seen heated debates regarding immigration law and the policy making process, many of these industrialized nations also have undergone substantive internal debate while developing their immigration policies. However, as other countries were able to resolve internal debates and implement their respective immigration policies, the United States also must recognize the pressing need to recruit and retain top talent and pass legislation that serves our country’s best interest.

Furthermore, the traditional emigrant countries are finding ways to entice their nationals, educated abroad, to return home. For example, China offers special “overseas terms” and other financial and professional incentives to returning nationals. Moreover, with its rapid economic growth and abundant opportunities, China has lured back a substantial number of its expatriates even without incentives from the government.<sup>25</sup> Likewise, Indian Nationals have been returning home to take advantage of a potential market in a fast-growing economy.<sup>26</sup> Though it is too early to gauge the long term effect of the relatively new phenomenon on countries like the United States, United Kingdom or Australia, we must be mindful that when the students graduate from our universities and go home, they take with them our most advanced knowledge, skills, technology, and managerial practices.

I would like to share with you just some examples of what other countries are doing. This is not intended to be an exhaustive list of all industrialized countries’ policies, nor is this a recommendation that the United States follow the footsteps of these countries. However, I submit these examples to the subcommittee to illustrate a growing trend among the industrialized nations to attract highly skilled professionals, and to underscore the need for the United States to have a policy that keeps us competitive in the race for technological supremacy.

<sup>25</sup> Oded Shenkar, *Dawn of the Chinese Century*. (Wharton School Publishing, 2005).

<sup>26</sup> David Heenan, *Flight Capital*, at 93-94 (Davies-Black Publishing, 2005).

### Australia

The most instructive example I can offer is Australia. Australia has structured its immigration intake into temporary and permanent entry. Its immigration policy has been designed to specifically address the economic needs of that nation. As such, Australia's immigration system specifically favors skills-based entry for both temporary and permanent workers. On the temporary entry side, the Australian system provides a mechanism to pre-certify petitioning companies so that neither the government nor the employer needs to waste resources to confirm the same bona fides that appear with every visa application involving the same company. Australia has also adopted a policy that reflects their government's recognition of how valuable highly educated foreign students are to Australia's economy. Rather than a bar against the intent to remain that appears in the U.S. system, Australian law actually facilitates the conversion from student to permanent resident status if the foreign students possess the necessary skills and can earn enough points for permanent residence. Nor does Australia impose quota limits on temporary workers.

The general approach of the government is to streamline the initial process in order to get the worker on the payroll. However, the system still places significant enforceable responsibility on the employer to ensure compliance with visa conditions and prevent the foreign worker from becoming a burden on the taxpayer. This approach is supported by a rigorous monitoring scheme by Government officials that incorporates heavy penalties for employers that breach the "contract" that exists between them and the Government. As part of their obligations, employers are monitored to ensure their commitment to recruit and train Australian staff in order to protect the local labor market.

Businesses that fail to comply with commitments to governments can have their right to sponsor temporary workers revoked. In addition, the Employer Sanctions Bill currently before Parliament will enable criminal prosecutions against employers that recruit people who do not have the right to work or do so as a breach of their visa conditions. These compliance measures should not be seen merely as instances of policy enforcement. Instead, such measures ensure that businesses comply in a general sense with their commitments to the government and are part of an effort to retain support for the temporary and permanent entry visa programs.

Under what the Australians call the Skill Stream, roughly seventy percent of permanent entry visas (green card equivalent) would be allocated to skilled workers. Comparatively, only about sixteen percent of U.S. permanent visas go to skilled immigrants, and more than half of the sixteen percent actually go to family members of the workers. The annual limitation for the "skilled stream," or professional/business/trade categories, increased from 78,000 to 97,500 in the 2005-06 program year. Last year, Australia announced a new point-based system that would increase the visa numbers for skilled professionals and for those who have corporate sponsorship. In addition, under the "Employer Nomination Scheme," foreign workers may become a permanent resident without undergoing the equivalent of a labor certification, provided that they can demonstrate that the position is one that requires a high degree of skill as defined in the legislation, and other criteria such as meeting a minimum salary level. In sum, the Australian system can best be described as designed with the inter-dependency between temporary and permanent entry in mind, and based on an overarching philosophy that there must be a demonstrable economic benefit to ensure on-going public support.



The result of Australia's immigration policy is that Australia has become a major net beneficiary in the movement of skilled professionals across international boundaries, meaning that more skilled professionals immigrate into than emigrate from Australia.<sup>27</sup> Australia's emphasis on the need for skilled workers and preference for younger professionals with English proficiency also ensures that it will derive substantial economic benefit from immigration.<sup>28</sup>

### Elsewhere Around the World

In addition to Australia, some countries also have implemented policies that would facilitate the recruitment of global talent, while others are contemplating similar measures

#### Canada

Historically, Canada has viewed immigration as a cornerstone of nation building. Immigration continues to be an important issue for its policy makers in light of its aging population and low birthrate. Canadian immigration policy has placed an emphasis on attracting young, highly skilled immigrants. In fact, according to recent data, roughly sixty percent of new arrivals to Canada are "economic immigrants." The immigrants are selected using a point-based system that favors persons of relatively younger age who have training and expertise in skilled occupations and knowledge of the country's official languages.

In June of 2002, Canada implemented a new set of regulations that elevated the standard for skilled workers. The new system favors those with university degrees and removed the requirement that applicants fit into specific niches (preferred occupations). Instead, the new system permits consideration of applicants with expertise in most skilled occupations. This system is commonly known as the "Human Capital" model.

Most recently, Canada promulgated a new policy of permitting foreign students who possess a Canadian post-secondary degree to remain in the country and work for two years, although the new graduate must work in a location other than Montreal, Toronto and Vancouver. This policy was initiated to encourage new graduates to settle outside of the traditional immigrant hubs and allow the benefits of immigration to be spread more evenly throughout the country. The new policy became effective on May 16, 2005 and provides Canadian employers greater flexibility in retaining those who have already reaped the benefit of Canada's educational opportunities. In addition, recent moves to permit international students to work off campus and to transfer their study permits to different institutions are expected to increase student enrollment by up to forty percent.<sup>29</sup>

Additionally, Canadian provinces have entered into agreements with the national government to allow for the expeditious processing of immigrants that the individual provincial governments have selected. This "Provincial Nominee" program allows for new immigrants to gain permanent status in as little as four months to address urgent labor shortages in their provinces.

<sup>27</sup> Bob Birrell, Virginia Rapson and T. Fred. Smith, *Australia's Net Gains From International Skilled Movement*. Center for Population and Urban Research, Monash University, at 3 (May 2006) .

<sup>28</sup> Sue Richardson and Laurence Lester, *A Comparison of Australian and Canadian Immigration Policies and Labour Market Outcomes*. The National Institute of Labour Studies, Flinders University, at 17 (Sept. 2004).

<sup>29</sup> Nick Clark and Robert Sedgwick, *International Students: It's a Buyer's Market*, World Education News and Reviews, at 3 (Aug. 2005).

### The European Union

Although immigration has become a European Union (EU) policy only in the last few years, the EU is beginning to take a serious look at the issue in light of its sharp rise in average age and a slowdown in population growth. While no one suggests that immigration will provide all of the answers to the anticipated labor shortage and demographic decline, there exists a growing sentiment that a sound immigration policy must be a part of the solution. In fact, on December 13, 2005, the Brussels-based European Commission designated 2006 to be the “European Year for Workers’ Mobility.”<sup>30</sup>

The recent enlargement of the EU from fifteen to twenty-five member states has increased the pool of available labor. The pre-enlargement EU states have a seven-year transitional period to open their labor markets to the nationals of the new EU member states since immigration policy remains largely within the purview of the individual member states. At first, only Ireland, Sweden and the United Kingdom immediately granted unrestricted work authorization and freedom of movement to nationals of the new EU member states. Earlier this year however, Finland, Greece, Portugal and Spain joined Ireland, Sweden and the United Kingdom in granting the nationals of the new EU states access to their labor markets. Belgium, Denmark, France, Italy, Luxemburg and the Netherlands opted to lower work permit requirements for nationals of the new EU countries. Austria and Germany, citing high unemployment, have decided to maintain restrictions on their domestic labor markets.<sup>31</sup>

The new, “post-enlargement” countries, such as Poland, Slovenia and Hungary, intend to impose similar work permit requirements as well as restricted freedom of movement privileges on nationals of both pre- and post- enlargement countries that impose restrictions on Polish, Slovenian and Hungarian nationals. For example, in July 2006, Italy abruptly lifted its work permit restrictions against all “accession” country nationals. In return, Hungary lifted its work permit restriction requirements against all Italian nationals.

The European Union is also working to make itself more attractive to international students by creating a single university system, offering more classes in English, and providing free or low cost tuition as well as scholarships.<sup>32</sup> Annually, Europe already produces forty percent more doctoral degrees in the fields of science and engineering than the United States.

In addition to regional policy on the movement of workers within the enlarged EU, several EU member states have taken national initiatives to attract highly skilled laborers. Some examples are:

#### *United Kingdom*

Most categories of employment-related temporary status in the United Kingdom (UK) require a work permit. However, a few categories are exempt from that requirement. One such category is the Highly Skilled Migrant Programme (HSMP), a points-based scheme that permits individuals of exceptional skills and experience to enter or remain in the country to *seek* employment or take up self-employment opportunities. A wide range of professions are eligible

<sup>30</sup> *European Year of Workers’ Mobility*, European Citizen Action Service. Vol. 00, 2006.

<sup>31</sup> *No Reason to Bar Door on Labor*, *EU Reports*. International Herald Tribune (Feb. 9, 2006).

<sup>32</sup> *International Students: It’s a Buyer’s Market*, at 7.

for the program, including those related to the fields of business, law, medicine, sports, and the arts. Specially designated subcategories of the HSMP are set aside for general practice physicians, as well as for foreign nationals who have earned a Master's degree in business administration.

A recent proposal by the government, still in the legislative process, would expand the use of the point system beyond just the HSMP. In spring of this year, the UK Home Office Secretary announced proposals for a new point-based system to determine the admissibility of foreign workers. The new system would consolidate all previously existing immigration categories, with the exception of visitors and family-based visas. The system would consist of five tiers. They are 1) highly skilled individuals who contribute to growth and productivity; 2) skilled workers to fill gaps in the labor force; 3) low skilled workers (to be admitted in limited numbers) to fill specific temporary shortages; 4) students; and 5) "youth mobility" or other temporary workers admitted for limited periods and to fulfill non-economic objectives. Employer sponsorship is integral to the system, and points are awarded for attributes that predict a worker's success in the labor market.

There are also programs already in place to retain foreign students who possess skills that the country needs. The Science and Engineering Graduates Scheme (SEGS) is a program that allows certain graduates of UK institutions of further or higher learning to enter or remain for up to twelve months to engage in employment or self-employment. To be eligible for the program, the foreign national must have successfully completed an eligible course of study at an approved UK institution of higher or further education within the twelve month period preceding the SEGS application. Notwithstanding the name of the program, the program is now available to persons holding a master's and doctoral degree in any discipline. In April, Prime Minister Tony Blair announced his goal to attract 100,000 more international students in the next five years.<sup>33</sup>

In addition, the Scottish Minister of Finance recently announced the "Fresh Talent: Working in Scotland Scheme" that permits non-European Union (EU) foreign national students to work and live in Scotland without the need for a work permit. This program is designed to allow foreign students who have graduated from an accredited Scottish college or university to apply, within one year of completing their studies, for an unrestricted, two-year work authorization as a Fresh Talent worker. Upon completion of the two-year program, Fresh Talent workers may opt either to depart Scotland or switch to one of the managed UK migration schemes. It is highly instructive to note by way of comparison that the number of overseas students in Scotland's universities increased by fifty-seven percent over the past five years.<sup>34</sup>

### *Ireland*

Historically, Ireland has been a country of emigration. However, during its economic boom of the mid-1990's, known as the "Celtic Tiger," Ireland began to experience a shortage of skilled workers that was felt by many other industrialized countries. From 1999 to 2003, the number of work visas issued rose from 6,250 to 47,000.<sup>35</sup> In fact, Irish census data suggests that the

<sup>33</sup> Marlene Johnson, *Toward A New Foreign-Student Strategy*, *The Chronicle Review*, Vol. 52, Issue 47 (Jul. 28, 2006).

<sup>34</sup> First Minister Jack McConnell, speech delivered at the University Scotland International Conference (Nov. 25, 2005).

<sup>35</sup> David Cantrell, *A Growing Need for Temporary Professional Workers*, *Immigration Law Today*, at 24 (Jan./Feb. 2006).

population of foreign nationals within Ireland may comprise as much as ten percent of the total population.<sup>36</sup>

In addition, last November, the Ministries for the Department of Enterprise, Trade and Employment proposed a new scheme to overhaul the immigration of skilled foreign workers. The proposal outlined a new employment permit policy. Called the "Employment Permits Bill," the legislation is comprised of three "pillars", with an emphasis on a "vacancy-driven" economic policy. The three "pillars" are 1) creating a permanent residence scheme for foreign nationals in occupations where skill shortages exist, and who earn an annual base salary of between EU 30,000 to EU 60,000, or unrestricted access to the job market for persons earning more than EY 60,000; 2) re-establishing Ireland's intra-company transfer scheme, which was suspended on October 29, 2002; and 3) creating a revised work permit system for foreign nationals in certain occupations earning an annual base salary of less than EU30,000 and who possess skills deemed to be in short supply.

Both Houses of the Irish parliament, called the "Oireachtas," passed the Employment Permits bill in June of this year. The bill is awaiting the Irish president's signature.

#### *France*

France recently approved a new immigration bill that heavily favors highly skilled immigrants. One key provision is a new type of three-year residence permit, called a "skills and talents permit," which encourages selective immigration for persons with higher qualifications and thoroughly documented work opportunities. Unskilled workers still may enter, but the obstacles barring their entry are increased.<sup>37</sup>

In addition, French law also provides a streamlined application process for certain managers and high-level executives who are being transferred to France from an affiliated foreign employer and who will be on the payroll of a French company. Under these conditions, a labor market test is not required. In addition, foreign scientists and researchers may be hosted by designated French universities and public institutions to perform research or work as university professors without the need for a work permit from local labor authorities.

#### *Spain*

Spain did not have formal immigration laws under the Franco regime, which ruled Spain until the late 1970s. During that time, Spain was largely an emigrant society to the Americas. In 1985, Spain's first law, the *Ley de Extranjería*, or the Law on the Rights and Freedoms of Foreigners, approached most immigration as temporary phenomenon, and focused primarily on control over migrants already in the country. Despite the late start in enacting immigration laws, Spain's immigration policy has shifted drastically towards welcoming highly skilled immigrants during the past two decades. For example, beginning in November of 2005, Spanish companies that have more than five hundred employees in Spain and have offices in more than one Spanish city would qualify for expedited processing of two types of work permit applications. They are 1) "Temporary Work and Residence Authorization" (reserved for quota-driven categories), or 2) "Transnational Work and Residence Authorization" (reserved for employees who will remain on

<sup>36</sup> *New structures studied to deal with immigrants.* The Irish Times, Aug. 14, 2006

<sup>37</sup> *France Set to Green Light Contested Immigration Law.* Agence France Press (May 17, 2006).

the home "sending" company's payroll). The processing time is thirty to sixty days, significantly shorter than the normal four to six months.

#### *Germany*

Although Germany has not agreed to lift all restrictions for new EU members to access its labor market, it did pass a new set of immigration laws, effective January 1, 2005, to attract skilled workers. The most frequent categories of persons seeking temporary status in Germany typically include highly qualified specialists or information technology specialists with a university diploma. Permanent residence is possible from the beginning for scientists with special technical knowledge, teaching or scientific personnel in prominent positions, or highly qualified specialists and managers earning minimum of EU 85,500 annually. This regulation is expected to change by the end of the year, further reducing the required minimum wage. Germany also adopted a "one-step" approach where a foreign national may apply for a temporary residence permit and receive concurrent permission to work as an effort to reduce bureaucracy. Finally, a recent report shows that foreign student enrollment in German universities have increased by nearly fifty percent in the past four years, with nine and a half percent of all university students coming from abroad.

#### *Netherlands*

As of October 1, 2004, the Netherlands began a new program to admit "knowledge migrant workers." Under this new law, a highly skilled migrant is defined as a migrant coming to the Netherlands for the purpose of employment and earning a minimum gross income of EU 45,495, or EU 33,363 if the highly skilled migrant is under the age of thirty. The income criterion does not apply if the person involved takes up employment with an educational or research institute, or is a postgraduate student or university lecturer under the age of thirty. Only Dutch companies or foreign companies with a Dutch entity may register for the Knowledge migrant program.

#### **New Zealand**

The Skilled Migrant Category was introduced by the New Zealand Department of Labor in 2003 to attract highly skilled foreign workers in critical shortage areas (e.g. information technology, medicine, professions requiring specialist certifications, or professions requiring master's/doctorate degrees). From December 21, 2005 forward, an even greater emphasis has been placed on attracting highly skilled workers and those foreign nationals applying under the "Skilled Migrant Category," who have accumulated the necessary points according the immigration scoring system, will be automatically selected to apply for residence. The Skilled Migrant Category places strong emphasis on awarding points to highly skilled applicants who have a valid job offer in New Zealand and whose skills are in demand in New Zealand.

Moreover, the New Zealand Immigration Minister recently released new national immigration quotas for permanent resident status (i.e. "Green Card") for foreign national workers. The national quota for such permits has been increased from 45,000 to 51,500. The Immigration Minister stated that these national quotas reflect the success of the Skilled Migrant Category in selecting the most qualified applicants in skills shortage areas.

It is also important to note that New Zealand, with a population of just over four million, does not have a capped temporary work visa system. For instance, in 2006, almost 100,000 work

permits and visas were granted to allow New Zealand employers to fill positions that could not have been filled from the local labor market.

#### **Costa Rica**

Costa Rica recently implemented a program that allows companies to register for “accreditation” and receive priority processing of work permit applications. The processing time for temporary residence permit applications was reduced from a minimum of four to five months to a mere fifteen business days. It is also significant that the Costa Rican government actually worked with several large multinational corporations and others in the business community prior to the change in law to understand the business sector’s concerns, and addressed those concerns accordingly.

#### **Conclusion**

In referring to these examples, my intention is not to suggest that the systems in these other countries are better. In fact, as I mentioned before, the world traditionally has looked to us for leadership and have emulated U.S. policy. However, it is important to note that, while other countries are looking for ways to attract highly skilled workers, U.S. immigration laws and procedures actually hinder our ability to do the same. Our visa quotas were developed in an economy very different to the one in which we operate today. The significant bureaucratic delays are a misapplication of resources by USCIS. These factors, coupled with the bar to immigrant intent for even the best and brightest students, gravely threaten our ability to remain the leader in the global competition for innovation and economic growth.

Congress can help remove these hindrances by passing the SKIL Act. I realize that immigration is a politically sensitive subject. However, I submit that even in the countries that I have cited in my testimony as having policies that favor immigration of highly skilled workers, there have been and continue to be debates much like the one we recently witnessed on the Senate Floor. In the end, these countries were able to enact laws that best serve their national interests. I respectfully urge Congress not to shun the issue, but to keep America competitive by removing the barriers that impede our access to talent and pass the SKIL Act this year.

Thank you, Mr. Chairman and members of this subcommittee. I look forward to answering your questions.

Testimony of  
Phyllis Farrell Norman, RN, MBA, CNAA, BC  
Vice President, Patient Care Services, Harris Methodist Fort Worth Hospital  
(member of Texas Health Resources)  
Before the Senate Judiciary Committee Field Hearing  
August 31, 2006

Mr. Chairman and committee members: Thank you for the opportunity to appear today to discuss my thoughts on the proposed SKIL Bill, S. 2691, particularly as it pertains to the recruitment of foreign nurse graduates.

I have been licensed as a registered nurse in the state of Texas since 1969 and for the past 32 years have worked for Texas Health Resources (THR) formerly Harris Methodist Health System. THR is the largest multi-hospital system in North Central Texas composed of 13 hospitals, providing a variety of acute care and wellness related health care services to 29 counties with a total population of 6.9 million residents. In 2005 1.1 million patients were provided services by THR facilities. THR is a member of the Texas Hospital Association (THA) and the American Hospital Association (AHA).

I am the Chief Nursing Officer at Harris Methodist Fort Worth Hospital (HMFV), the largest tertiary care facility in Fort Worth. In my position, I have responsibility to provide the highest level of patient care available to the patients served by our hospital. This requires me to recruit and retain professional nurses in order to be able to offer these services without interruption. We need an adequate number of qualified registered nurses (RNs) available to fill vacancies in a timely fashion as they arise. Currently, HMFV has 82 RN vacancies which is a 5% vacancy rate for the hospital. In January 2006, the Dallas Fort Worth Metroplex reported an 8.6% RN vacancy rate, or 1295 unfilled RN positions.

The healthcare industry is facing tremendous challenges to its ability to provide the kind of quality, compassionate care to which we are committed. This situation is expected to worsen in the future. These challenges include an aging population, an increased rate of obesity, and the development of chronic health conditions in each of those populations, which places huge demands on existing healthcare services as well as requiring us to increase access to and availability of services in the future. These trends will require increasing numbers of healthcare workers, especially RNs. As you may know, this country is experiencing a shortage in many healthcare related professions with registered nurses heading up the list. Texas predicts the need for 41,000 more RNs by 2010 and 60,000 by 2015. The Health Resources and Services Administration projects a shortage of one million RNs by the year 2020 in the United States.

You may wonder why the U.S. is unable to produce the number of qualified RNs needed to meet its own needs. Ensuring an adequate supply of RNs requires strategies to expand the number of people who enter health care careers, to retain those already in the workforce, and to improve the flexibility of that workforce in responding to expanding and contracting demand for services and changes in the methods of delivering those services. Nursing is a very demanding profession intellectually, physically and emotionally. As other professional opportunities have improved, especially for women, fewer individuals are interested in healthcare careers with all of the stress,

difficult hours and risks of injury. Other careers often offer better pay and benefits and fewer lifestyle compromises.

Nonetheless, we have had a growing number of applicants to the nation's nursing programs. Unfortunately, the nursing education system lacks the capacity to accept all of the qualified applicants. In fact, for the 2005 academic year, over 150,000 qualified applicants were turned away from the nation's nursing schools (including diploma, associate degree, and bachelor's degree programs). In 2005 over 11,000 Texas nursing school applicants were denied admission because enrollment is full. There is no quick remedy to this problem, because it stems from a shortage of trained nursing faculty and insufficient clinical facilities. Both of these causes require significant amounts of money and time to fix.

Faculty shortages are due primarily to poor faculty salaries compared to those paid to practicing nurses by healthcare facilities, making it difficult for academic institutions to recruit and retain qualified faculty members, who must have higher levels of education than required for most practice positions. Hospitals and training programs have collaborated by sharing nursing staff with advanced degrees to serve as faculty and by providing grants to acquire new faculty members. This has resulted in an increase in Texas student enrollment of 39% between the academic years 2000 and 2005. However, this is not sufficient to meet the growing needs of the population.

Another driving force causing the shortage is the aging RN population. The average age of an RN is 46, and they tend to retire earlier than many other occupations due to the physical, mental, and emotional demands of the job. Within the next ten years, a large portion of the most experienced RN population will begin to decline due to full or partial retirement. Hospitals have and continue to invest considerable time, energy and resources in retention programs in order to retain these workers, including incorporating "best practice" strategies developed by the Texas Nurses Association in their "Nurse Friendly Hospital" designation and the American Nurses Credentialing Corporation's Magnet Recognition Award for Excellence in Nursing Services.

More will need to be done at the federal and state levels to improve the salaries of nurse educators, recruit more nurses to teach, and create additional clinical facilities. Even with adequate funding the lead time for these changes will be long. And the funding is far from adequate at this time. It is the collision of this stark reality with the growing patient care needs that makes the availability of qualified immigrant nurses so crucial. We require the same qualifications and provide the same salaries and benefits to these nurses as we do for those hired domestically. This is not about saving money. On the contrary, it is costly and time-consuming to recruit from abroad. But without this international supply, we could not fill our staffing needs. Whatever one hospital system might do to recruit extra domestic nurses just comes out of the total national supply, still leaving a shortage to be addressed from abroad.

It is estimated that 15% of new nurses being licensed in the U.S. each year are foreign graduates. Any interruption of their availability has an immediate and very detrimental effect on the healthcare industry, making an already difficult situation worse. But just such an interruption already occurred in 2005 and another looms for this fall. Without Congressional action we face a crisis in this area.



In January 2005, visa numbers for skilled employment-based immigrants were oversubscribed and a waiting list was established for the largest sending countries—China, India and the Philippines. The effect was a three-year hold on admissions of these immigrants. Although other categories of skilled workers were also affected, most of those employees were already in the U.S. and could continue to work while waiting for their green cards. Nurses do not have such a temporary work category, so they had to wait abroad. Luckily, through the initiative of the AHA and the leadership of your colleague, Senator Kay Bailey Hutchison, Congress was persuaded to “recapture” 50,000 visas that were unused from past years and made them available for nurses and physical therapists. However, that pool will be used up by November—more than half to accommodate the dependents of the workers.

And this time the waiting list will not be limited to the three countries sending the most employment-based immigrants, but will apply to the whole world. And instead of a three-year delay, the wait will stretch to five years. Imagine losing 15% of the new nurses beginning work for each of the next five years—a total of over 70,000 fewer nurses than the current, inadequate supply. Hospitals and their patients cannot absorb that kind of a hit.

There are already tremendous delays in obtaining visas for foreign nurses. THR alone experienced great difficulties and delays in trying to recruit 150 nurses from the Philippines in 2001. After five years, only 1/3 of those nurses have actually successfully completed visa requirements and begun to work in this country. To add the impending cut-off of visas to the long delays already in the process would be a catastrophe.

Luckily, there is a ready solution at hand. Mr. Chairman, your excellent SKIL Bill addresses this problem along with providing many other improvements to employment-based, legal immigration. It does so by taking nurses and physical therapists out from under the annual worldwide cap for skilled workers. It does so based on the existing designation of these professions by the Secretary of Labor as “shortage occupations” receiving blanket labor certification. Should the shortage be resolved by other measures to increase the domestic supply, these professions would go back under the cap. So there is no danger of flooding the market with such immigrants if they are not needed.

The result of not having enough RNs translates into closed hospital beds, overcrowded emergency departments, delayed treatment, elimination or reduction of services, and denied access to some patients seeking care. All have a detrimental impact on the quality of care provided to our citizens which impacts entire communities.

As I have explained, we face a crisis within the next three months. We urge that Congress pass the SKIL Bill, either as part of Comprehensive Immigration Reform, as a separate bill, or as a rider to a year-end spending measure. Whatever the procedure, the remedy is urgently needed by patients in Texas and across the country. Without an adequate supply of new nurses, hospitals cannot provide the high quality care that these patients need and deserve.

**Testimony of  
Phillip J. Ritter  
Senior Vice President, Public Affairs, Texas Instruments Incorporated  
Before the Field Hearing of the Immigration, Border Security and Citizenship  
Subcommittee of the  
Senate Judiciary Committee  
Dallas, Texas  
August 31, 2006**

Mr. Chairman: Thank you for inviting me to discuss an issue critical to the competitiveness of U.S. business – access to top talent.

American competitiveness is a top public policy priority for Texas Instruments. We support the President's American Competitiveness Initiative which calls for increased investments in basic research, making the R&D tax credit permanent, improving math/science education and ensuring better access to skilled professionals, including highly educated foreign nationals.

Your hearing today highlights this last item and the need to update and reform our deeply flawed U.S. immigration laws, specifically those pertaining to highly educated foreign professionals. We are advocates of change.

On that note, I want to thank you at the outset for your leadership on the SKIL Bill, legislation which we believe will go a long way in addressing these deficiencies. The United States benefits when foreign-born scientists, doctors, teachers, engineers and entrepreneurs live and work in this country. Your vision is moving us in that direction, and away from the disincentives which discourage irreplaceable foreign talent.

I would like to make three main points this morning:

- 1) The United States' long-term competitiveness and ability to innovate is tied to the intellectual brainpower of its workers, particularly the science and engineering workforce. Unfortunately, the U.S. is not producing enough American-born professionals in these fields to meet the demand.
- 2) We will always want to have access to the best talent in the world but building a domestic pipeline of science and engineering talent must be a national imperative.
- 3) Access to talent is not just about more H-1B visas. It is also about green card reform that ensures that foreign nationals can remain in the United States and build their careers here.

**1) The United States' science and engineering workforce.**

To the first point: Whether you cite Tom Friedman, the National Academy of Sciences, the National Science Foundation's Science and Engineering indicators or a host of other studies and reports, the verdict is in: the U.S. faces significant challenges in developing, attracting and retaining its engineering and science workforce.

We know that more than half – and in some disciplines two thirds – of the advanced degrees awarded at U.S. universities in science and engineering are earned by foreign nationals. Due to a number of factors – including demographic shifts, interest, poor preparation, and lack of awareness of opportunities – we also know that fewer U.S. students are choosing to study in many of these fields. Finally, we note that U.S. high school students perform poorly in comparison to their international peers on math and science assessments.

Despite this grim reality, U.S. business must compete and succeed in the global market. For example, TI is highly dependent on electrical engineers in our design, manufacturing, R&D and sales operations. When we recruit at Texas schools, we find upwards of 70% of the masters and PhDs are awarded to foreign nationals. We need access to that talent, especially those that have been doing cutting edge nano-electronics research. So do our competitors. Let me tell you, there is a constant scramble for these people.

## **2) Building a domestic pipeline**

Since the founding of this country, foreign-born immigrants have made significant contributions to virtually every aspect of the U.S. economy. That is especially true in the sciences. We will always want to tap the world's best and brightest, especially in our global economy. But there is no doubt that we must do more here in the U.S. to build an indigenous pipeline of talent. TI and many other high tech companies are focused on this issue.

In fact, our company's primary philanthropic and volunteer effort is in furthering and enhancing the education pipeline at all grades and levels. I would like to submit for the record a brief overview of our various programs and activities. One example is the Texas Engineering and Technical Consortium or TETC. It is a consortium of nine companies, 34 colleges and universities and the State of Texas, working together to increase the number of engineering and computer science graduates in Texas. We appreciate the support your office has given this program in helping secure federal funds to match the state and private funds. The total TETC program for 2005 is valued at more than \$16 million.

The federal government also clearly has a role in making math and science proficiency a national imperative. The President's Math Now, AP and Adjunct Teachers Programs are important tools. TI has been a long-time supporter of the AP Incentive Program that has yielded impressive results in increasing the number of students taking and passing AP classes.

We have worked with the local Richardson Independent School system to close the achievement gap between minority and Caucasian students – while increasing overall academic achievement – and we’re starting to see some positive results. In fact, this could serve as a model for the Math Now program. Other existing programs at NSF and the Department of Education, indeed all across the federal government, can also be refocused and leveraged to address this pipeline challenge. We support these efforts and urge Congress to act on them as quickly as possible.

### **3) Green card reform.**

As you know, the government has already exhausted the H-1B visa quotas for the next fiscal year as well as the additional 20,000 visas available for students graduating with advance degrees from U.S. universities. There is no question that more visas are needed. We strongly support the provisions in the SKIL bill that raise the H-1B cap and exempt altogether professionals who have earned a masters degree or higher.

Equally important are the bill’s provisions that update the employment based-visa - or green card – program. This will provide additional visas generally and exempt individuals with advanced degrees from U.S. universities and their immediate family members from the quota.

A majority of scientists and engineers earning advanced degrees from U.S. universities are foreign-born. Many of them wish to stay and establish their careers and families in the United States. Texas Instruments seeks green cards for virtually all of the employees we have hired on H-1B visas. And we begin the process as soon as they are hired.

Unfortunately, unreasonable caps, unrealistic allotments and extreme administrative delays can hold these people in legal and professional limbo for years. Imagine graduating with a PhD in electrical engineering from UT Austin and having your career opportunities stymied for 5-7 years because you can’t get your green card. Without a green card these professionals are unable to seek promotions, move to a new city or change jobs. The result is that more professionals are opting to return home or take jobs in other countries, even if they would rather stay in the United States. This uncertainty also reduces the flexibility of the employer to deploy resources as needed.

In short, the goals and objectives of the SKIL Bill are critically important. Mr. Chairman, I want to again thank you for your leadership and urge you strongly to secure some relief on this front this year. I am aware time is running out, but the need is clear. Thank you for your consideration.